Lethbridge Community Outlook
2016 - 2023

This report is produced by the City of Lethbridge in cooperation with Economic Development Lethbridge and Environment Lethbridge.

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Executive Summary

The Community Outlook Report evaluates the current state of Lethbridge within the context of the Global, National, Provincial and Regional settings. It is intended to provide a snapshot of how well the city is positioned to continue to prosper and to balance the needs of the community through time. It includes an analysis of the city of Lethbridge from an economic as well as a social perspective to provide insights into the current state of the community along with future projections that are intended to enable the community to anticipate and plan for future services and needs.

FACTS AND FIGURES

- The global economic growth is projected to be 3.3-3.8% for 2018 and growth in Canada is projected to be 2.1-2.4%. Alberta had a strong bounce-back year in 2017 as GDP growth led all Canadian provinces.

- The outlook for Lethbridge and Region's economy is positive. Stability in the public service sector and traditional industries, along with growth in the agri-business sector and in emerging industries, will lead to positive growth. Economic Growth in Lethbridge increased by 2.4% in 2017 and is expected to see moderate growth in 2018-2021.

- Lethbridge's core industries include agri-food processing, manufacturing and supply chain and logistics. Significant investment in recent years has included Cavendish Farms' new frozen potato processing plant, construction of a new PepsiCo Beverage Canada warehouse distribution centre, expansion of the Lethbridge Frito-Lay plant, and upgrading and modernization by Richardson Oilseed.

- Building permit construction value, a significant leading indicator of economic activity totalled $313.5 million dollars in Lethbridge in 2017. This is the second highest annual value on record for Lethbridge. Institutional activity in 2017 was up 88% from 2016, and residential activity was down 4% from the previous year.

- Lethbridge housing starts were up 14% in 2017, due primarily to a flurry of activity in the row and apartment segments. Housing activity in Lethbridge was buoyed by the multi-family segment last year, as there were a total of 238 row and apartment starts in 2017, up 62% from the previous year.

- Inflation in 2017 in Alberta, following the Consumer Price Index (CPI), was 1.6% in 2017. Forecasts for 2018 suggest inflation between 1.8% and 2.3% and for 2019 in the range of 1.9% to 2.1%.

- Unemployment in the Lethbridge-Medicine Hat region was 5.7% in 2017 the lowest comparable value among all economic regions in the province.

TRENDS AND OBSERVATIONS

- Population growth in Lethbridge has traditionally been stable averaging about 1.8% per year since 1994. The population booms and busts experienced in other cities in Alberta have not tended to take place in Lethbridge. Growth between 2016 and 17 was 1.41% but is expected to grow at an average annual growth rate of 1.9% between 2017 and 2023. It is possible that Lethbridge will reach a population of 100,000 in 2018, but it is more likely that it will reach this milestone in 2019.

- Contrary to popular myth, Lethbridge has a very young population. According to the 2016 Federal census, of Canada's 35 metropolitan areas (Census Metropolitan Areas - CMAs), Lethbridge had the highest proportion of children 14 years of age and under (19.11%) and residents between 15 and 24 years of age (13.97%). The high proportion of those between 15 and 24 is in part, due to the presence of two major post-secondary institutions in the city. However there is a sharp decline in the proportion of residents older than 24 years of age, as students graduate and move to other centres where their skills are in high demand. Efforts should be made in stemming the observed exodus of people completing university or college as these individuals are highly skilled and tend to work in higher wage jobs.

- The Oil and Gas Sector plays a significant role in Alberta. Oil averaged $51 a barrel in 2017 and is anticipated to be between $57 and $60 by the end of 2019.

- The residential development sector remains stable with a small decline in Lethbridge new home starts for the 2016-2017 period. Despite the sharp decline in 2017, infill developments have shown a gradual rise in popularity over the past decade. Greenfield development continues to show a decrease in the amount of land that is consumed for new single family domestic dwellings. As major commercial and industrial projects near completion, commercial development is expected to return to a level closer to what was seen in the early 2010s.
- In perspective of the recent provincial economic instability, Lethbridge's employment diversity has served it well. The recent expansion to the Chinook Regional Hospital and the University of Lethbridge's Destination Project are already having a significant impact upon employment within Lethbridge in the future and underscore the importance of the public sector to the local economy.

SOURCES

Conference Board of Canada. (21 February 2018). 2017 Mid-Sized Cities Outlook.

Part 1: Global Outlook

We live in an interconnected world where market forces tend to be increasingly correlated. As a result, it is always best to analyze a municipal economy in the context of the bigger global picture. This Global Outlook highlights the economic conditions in a variety of areas that help shape the Lethbridge picture. It will focus specifically on 2017 economic conditions in the following areas:

- United States of America
- Canada
- Alberta

1.1 United States of America

- A tight labour market has boosted wages, and in turn consumer spending
- Tax changes should help catalyze further growth this year
- The prospects of inflation are becoming increasingly concerning and could dampen the effects of fiscal stimulus programs

2018/19 GDP Forecasts

Area	Institution	2018 (forecast)	2019 (forecast)
Global	BMO	3.7%	3.4%
	TD	3.8%	3.6%
	CIBC	3.3%	3.1%
	Scotiabank	3.8%	3.6%
United States	BMO	2.6%	2.0%
	TD	2.6%	2.3%
	CIBC	2.7%	1.9%
	Scotiabank	2.5%	1.8%
	RBC	2.5%	1.9%
Canada	BMO	2.2%	1.8%
	TD	2.4%	1.8%
	CIBC	2.1%	1.6%
	Scotiabank	2.3%	1.7%
	RBC	1.9%	1.6%
Alberta	BMO	2.4%	2.3%
	TD	3.0%	2.0%
	CIBC	2.3%	1.9%
	Scotiabank	2.5%	1.9%
	RBC	2.3%	2.0%

1.2 Canada

- The national unemployment rate witnessed substantial declines in 2017, and recorded the lowest comparative figure since 2008
- Growth was paced by Alberta in 2017, but every province west of Quebec witnessed GDP growth in excess of 2.6%, with the exception of Saskatchewan
- 2018 could see tempered growth as regulatory changes affect housing and trade uncertainty lingers

1.3 Alberta

- Strong bounce-back year in 2017 as GDP growth led all Canadian provinces
- Western Canadian Select (WCS) oil prices witnessed healthy annual growth, but remain adversely affected by a lack of pipeline capacity to facilitate exports
- Manufacturing sector witnessed solid gains from a year-over-year perspective

SOURCES

CIBC Economics.

Scotiabank.

BMO Capital Markets.

TD Economics.

RBC Economics.

Part 2: Economic Outlook

2.1 Lethbridge Economy

Based on the many economic indicators outlined in this report there are plenty of reasons to maintain a continued positive outlook for the city and region. That's not to say we are completely immune from the challenges facing the provincial economy. However, stability in traditional industries, growth of emerging industries and strength in the public sector create an environment for both stability and new opportunity.

In terms of economic growth, at $5.5 billion, local GDP was expected to grow by 2.4% for 2017, which is slightly less growth than experienced in 2016 at 2.6% according to the Conference Board of Canada.

In terms of the labour market, the Lethbridge-Medicine Hat region's average unemployment rate in 2017 was 5.7%. This is an decrease of 1.2 percentage points on an annual basis (6.9% in 2016). The region remains the lowest in the province sitting well below the provincial unemployment rate which averaged 7.8% and the national rate of 6.3%. This reflects some of the diversity in the local business landscape as well as the need to focus on innovation that comes through education and entrepreneurship. Innovation can be driven by education as well as entrepreneurship, and Lethbridge continues to demonstrate strength in both of these areas. 2017 was a milestone year for the post-secondary institutions in this city. Lethbridge College celebrated its 60th anniversary and opened the final phase of the Trades and Technology Facility – one of the largest projects in its history. The University of Lethbridge marked it's 50th anniversary and, with provincial funding in place, has begun work on the Destination Project – a new science and academic building that will shape the future of education in southern Alberta. With two prominent post-secondary institutions, there also comes the need for quality opportunities to encourage graduates to stay and work in this region. The Tecconnect centre for entrepreneurship and innovation provides training opportunities and support services as well as a welcoming place for innovative thinkers to collaborate, grow and in some cases, build their own careers.

SOURCES

The Conference Board of Canada
- Mid-Sized Cities Outlook:
Economic Insights Into Select
Canada Cities - 2017

As our population moves towards 100,000, work is being done by the municipality, and its many partners, to build a great community and plan for a bright future. Over the next five years, there is nearly $1 billion in major developments underway or planned such as Cavendish Farms Frozen Potato Plant, University of Lethbridge Destination Project and ATB Centre - Phase 2 Leisure Complex.

Quality of life is also impacted by housing prices which have historically experienced steady growth in the city. This is an important data point as the housing market is generally seen as one of the first economic indicators to rise or fall when conditions change. In 2017 these indicators showed positive activity in Lethbridge with new home construction up 14% over the previous year. With the addition of 769 new units, Lethbridge added more new residential builds than other similar sized cities in Alberta, excluding Wood Buffalo. Average prices in the residential resale market continued to demonstrate steady growth.

Lethbridge is certainly not immune to the pressures affecting the province even with a diverse mix of industry and significant employment within the public sector. The majority of the tracked economic indicators support Lethbridge's claim as a stable market supported by a reasonable level of economic diversification.

2.1.1 Business Investment

Lethbridge has close to 5,700 businesses operating in multiple sectors with new businesses opening their doors every year. The market has experienced strong investment over the past five years in the commercial, industrial, institutional and residential sectors.

Over the past five years more than 1,831 new businesses have been licensed to operate in Lethbridge, 693 of those are regular brick and mortar businesses, with the remaining 1,138 home-based businesses licensed.

Lethbridge and the surrounding area enjoy a wide range of industrial and commercial opportunities – serviced land in industrial and commercial parks, big box power centres, small strip malls, and downtown retail space and office buildings. Our core industries enjoy favourable real estate market conditions that allow many options for investment now and in the future.

HIGHLIGHTS:

- The total number of licensed businesses in Lethbridge has been relatively steady since 2015
- New business activity has witnessed a slight decline since 2015, with new home-based licenses down by 6% and regular licenses (non-home based) down by 8% over this period

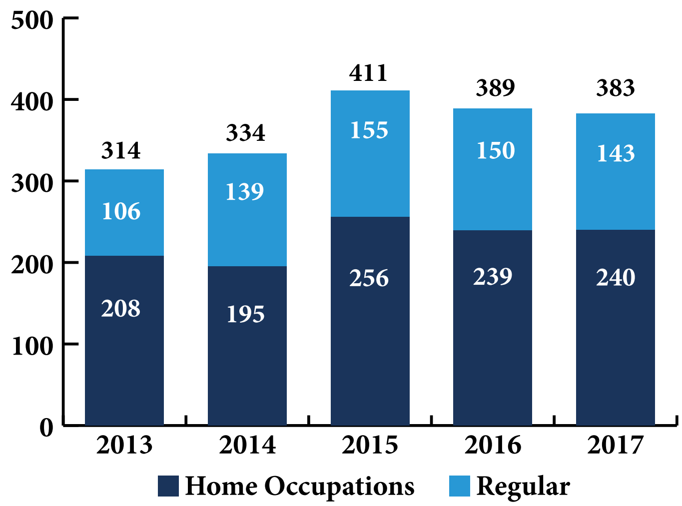
Total New Lethbridge Business Licenses

Year	Total New Business Licenses	Annual % Change
2013	314	
2014	334	6.4%
2015	411	23.1%
2016	389	-5.4%
2017	383	-1.5%

Lethbridge Business Licenses

Year	Total New Business Licenses	Year-Over-Year Change	Annual % Change
2013	5,678		
2014	5,472	-206	-3.6%
2015	5,667	195	3.6%
2016	5,691	24	0.4%
2017	5,673	-18	-0.3%

New Business in Lethbridge



Source: The City of Lethbridge, Regulatory Services, New Business License List

PROJECTS 2011-2017:

Over the years, many new business investments as well as expansions have positively impacted the Lethbridge marketplace. The following are just a few examples of private sector activities tracked or supported by EDL:

- **Red Arrow Motor Coach** announced services to, and offices in, Lethbridge. (2011)
- **PepsiCo Beverages Canada** announced the start of construction on a 9,600 square foot LEED-certified warehouse distribution facility in Lethbridge. (2012)
- **Richardson Oilseed Ltd.** invested $15 million to expand and upgrade Canola Manufacturing Operations. (2012)
- **Egg Processing Innovations Cooperative (EPIC)** plant began operation in Lethbridge. It is the first egg breaking plant of its kind in Alberta. (2013)
- **Richardson Oilseed Limited**, one of the largest canola oil processors in North America, announced it will enhance efficiencies at the Lethbridge location through upgraded technology and modernization of $120 million, which will more than double the capacity of the facility. (2016)
- **Sunnyrose Cheese** (a division of Agropur) successfully created a new wastewater agreement with the City of Lethbridge to build a pipeline from their Diamond City plant to the Lethbridge Water Treatment facility. (2013)

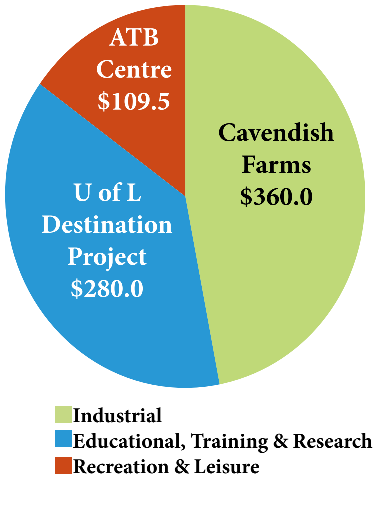
- **The Tecconnect** centre for entrepreneurship and innovation celebrated it fifth anniversary with seven incubator companies and five alumni companies demonstrating a growing positive influence on entrepreneurial success. Since opening, 165 jobs have been created thorough the centre with 57% of the companies in the **Tec**connect started by, or employing, grads from the local post-secondary institutions. (2015)
- **Laporte** acquired Lethbridge-based firm, Trimark Engineering and established their sixth Canadian office and first Alberta location. Laporte specializes in biopharmaceutical, food and beverage, and industrial engineering. (2014)
- **Coulee Brew Company** broke ground for a new restaurant and brewery. (2014)
- **Federated Co-Operative Ltd**. choose Lethbridge for Alberta expansion. Following information-based support over several months, South County CO-OP opened two new gas bars in the Chinook Business Park South and in Westgate, adding to an Agro Centre in Broxburn Business Park in Lethbridge County. (2014)
- **Lowe's**, a new retail store opened in Lethbridge.
- **Mint Smartwash** opened a carwash in Lethbridge.
- **PepsiCo Foods** completed construction of a nine-story expansion to their Lethbridge Frito-Lay plant adding a state-of-the-art automated storage and retrieval warehouse system. (2015)

PROJECTS 2016-2017:

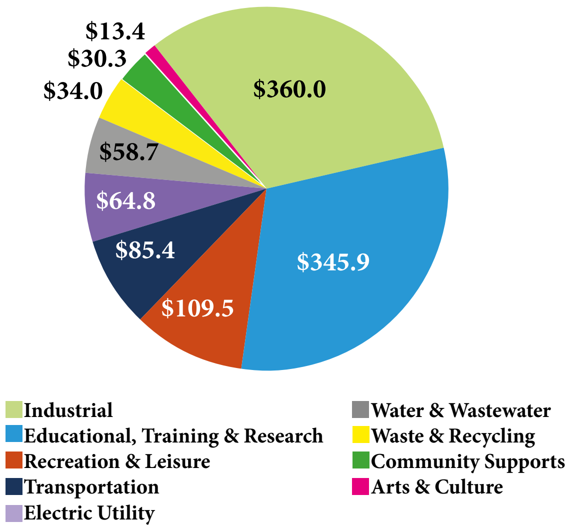
The following are a few examples of the largest business investments during 2016-2017:

- **Cavendish Farms** (Industrial) will expand its business with the construction of a new frozen potato processing plant. The new facility has an estimated construction cost of $360 million - the largest private investment in Lethbridge's history. (2017-2019)
- **University of Lethbridge** (Education, Training & Research) destination project includes a new science and academic building. The campus footprint will expand by 36,000 sq. meters.
- **ATB Centre** (Recreation & Leisure) is a new leisure centre that will include an aquatic centre, multi-purpose rooms, fitness centre, field house, indoor playground and amenities. The new facility has an estimated construction cost of $109.5 million.
- **Lethbridge College** (Education, Training & Research) invested $77 million in a new Trades and Technologies facility.

Lethbridge Major Business Investment 2016-2017 (in millions)



Lethbridge Major Business Investment 2017-2021 (in millions)



2.1.2 Construction Activity

Building permits are an important leading indicator as this capital investment allows us to gauge where a market is headed. When permit values increase, it is a sign that developers have confidence in a local economy and its ability to generate growth.

HIGHLIGHTS:

- Total value of building permits were $313.5 million, the second highest annual figure on record, but down 7% from the 2016 figure
- Institutional permit values were up 88% on a year-over-year basis
- Per capita permit totals in Lethbridge were significantly higher than comparable figures in other mid-sized cities in Alberta

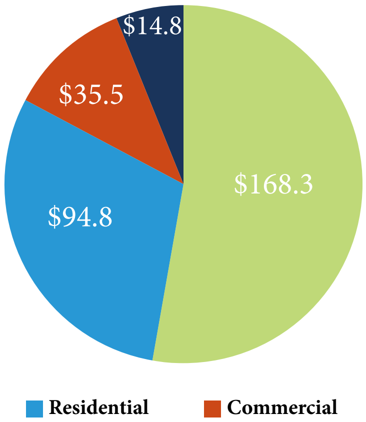
There was a total of $313.4 million in building permit construction values in Lethbridge in 2017, down 7% on a year-over-year basis. In spite of the annual decline, the figure from the current year is still the second highest on record; taken together, the most two-year figure (2016-2017) of $650.5m is the highest on record for a comparable time period. The elevated investment totals are suggestive of confidence in the local area moving forward.

Institutional permits comprised the largest share of the overall total last year, accounting for 54% of the annual figure. The 2017 value of $168.3 million was the largest on record and represents an increase of 88% from the comparative figure one year ago, the largest increase among all permit sub-categories (commercial, industrial, institutional, residential). It should be noted that the bulk of this figure was concentrated, as one large permit accounted for 75% of the annual total last year.

Building Permit Construction Value
(in millions)

	2013	2014	2015	2016	2017
Commercial	$ 83.5	$ 39.2	$ 71.8	$ 137.3	$ 35.5
Residential	84.1	89.8	95.5	98.8	94.9
Industrial	28.7	23.5	23.4	11.3	14.8
Institutional	51.1	88.5	59.1	89.7	168.3
Total	$ 247.4	$ 241.0	$ 248.8	$ 337.1	$ 313.5

Lethbridge Building Permit Values by Sector (in millions)



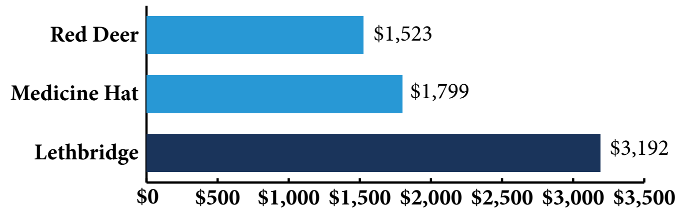
Residential permit values totalled $94.8 million in 2017, down 4% on a year-over-year basis. Permit values for the single-family segment were up 2% last year, but multi-family values declined by 23%, which was enough to trigger a reduction in the overall sub-category. Residential values made up 30% of the overall total in 2017, roughly equal to its share the year prior (29% in 2016).

The total value of commercial permits was $35.5 million last year, representing a decline of 74% on an annual basis. The 2016 value in this category was record high, making this a challenging annual comparative. At the same time, it should be noted that the value for the most recent year represents the smallest annual figure since 2012. Commercial values accounted for 11% of the overall total last year; in 2016, they accounted for 41%.

Industrial permit values totalled $14.8 million in the most recent calendar year, an increase of 31% on an annual basis. This segment has softened over the past two years, as the average annual value of permits in this sub-category between 2012 and 2015 was $24.0 million. Permits totals in this sector accounted for 5% of the overall figure in 2017, up from 3% in the prior twelve months.

Per capita figures are a good way to control for population growth when making comparisons between geographically disparate locations. Permit values in Lethbridge totalled $3,192 last year, down 8% from 2016. In spite of this drop, the Lethbridge figure remains 77% higher than the Medicine Hat value and exceeded the Red Deer comparative by 110%.

Per Capita Building Permit Value Comparison - Alberta Mid-Sized Cities



SOURCES

City of Lethbridge.

2.1.3 HOUSING MARKETS

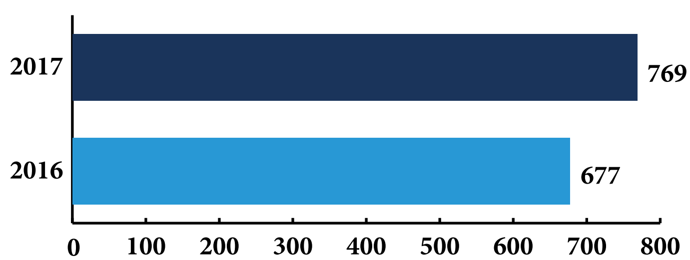
LETHBRIDGE AND REGION HOUSING

Housing markets are an important leading indicator as they are one of the first sectors to shift when economic conditions change. An increase in housing starts suggests heightened demand to live in an area, which is usually linked to a strong local economy. Population growth, in concert with strong economic fundamentals, can lead to higher housing prices and overall wealth generation. Housing comprises the core financial asset of most Canadian families, so fluctuations in the value of this market has reverberations for local macroeconomic conditions and overall wealth generation.

HIGHLIGHTS:

- Lethbridge housing starts were up 14% in 2017, due primarily to a flurry of activity in the row and apartment segments
- The 238 multi-family starts were the most witnessed in a single year since 2000
- Single detached starts were flat
- Resale home prices in the Lethbridge area continued to demonstrate steady, incremental gains
- Sales volumes were down 1% on a year-over-year basis

Lethbridge & Region Housing Starts



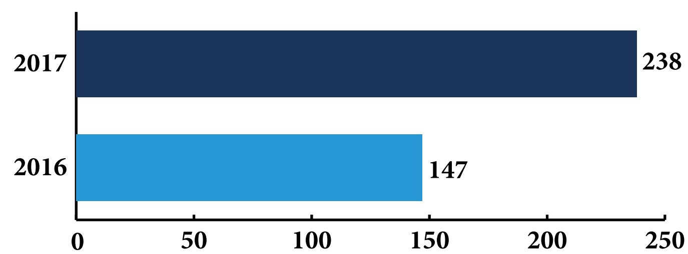
There were 769 total housing starts in Lethbridge in 2017, up 14% on a year-over-year basis. The broader provincial market outperformed Lethbridge in this area over the same time period, as Alberta starts were up by 22% last year. This figure somewhat distorts the picture though, as growth was highly concentrated in Wood Buffalo (where there were approximately 1,500 more starts in 2017 than 2016 due to the wildfires) and Calgary (up 25% compared with the 2016 total). Lethbridge outperformed other mid-sized cities in the province as starts were down in Red Deer (-12%), Medicine Hat (-13%), and Grande Prairie (-17%) over the preceding twelve months.

Alberta Mid-to-Large Sized Cities Housing Start Comparison

Area	2017	2016	% Change
Wood Buffalo	1,625	135	1,104%
Calgary	11,534	9,245	25%
Lethbridge	769	677	14%
Edmonton	11,435	10,336	11%
Red Deer	331	375	-12%
Medicine Hat	140	160	-13%
Grande Prairie	194	234	-17%

Housing activity in Lethbridge was buoyed by the multi-family segment last year, as there were a total of 238 row and apartment starts in 2017, up 62% from the previous year.

Lethbridge & Region Multi-Family Housing Starts

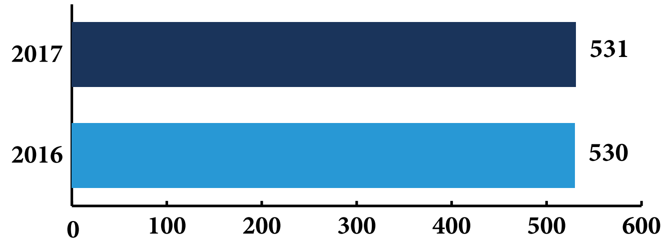


This is the highest number of starts in this combined category since 2000 and is the second highest figure on record since CMHC began providing this data series in 1990. Multi-family starts were up by 22% in Alberta in 2017.

Alberta Mid-to-Large Sized Cities Multi-Family Housing Start Comparison

Area	2017	2016	% Change
Wood Buffalo	603	24	2,413%
Lethbridge	238	147	62%
Edmonton	4,497	3,709	21%
Calgary	5,793	4,804	21%
Red Deer	90	190	-53%
Medicine Hat	13	35	-63%
Grande Prairie	2	92	-98%

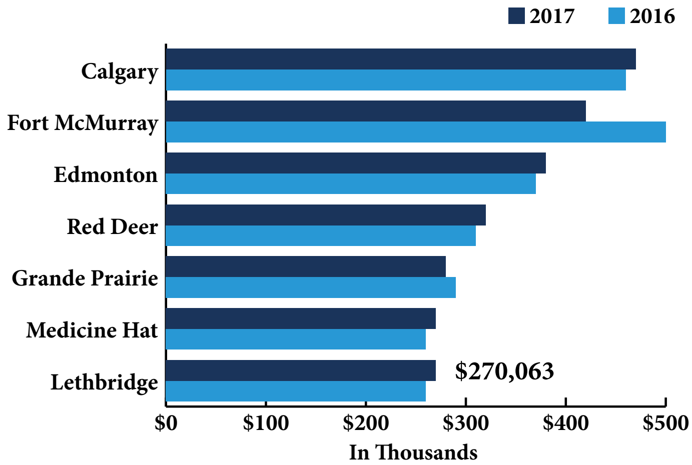
Lethbridge & Region Single/Semi-Detached Housing Starts



Activity in the single and semi-detached segments was flat last year, as there were a total of 531 starts, representing an increase of one unit from the year prior (530 in 2016). Starts in this portion of the market have slowed a bit in recent years, with the 2016 and 2017 annual totals representing the lowest annual comparatives since 2001. Starts were up by 22% provincially last year, boosted in part by an 821% annual increase in Wood Buffalo; Grande Prairie (35%), Red Deer (30%), and Calgary (29%) other cities to witness strong growth in 2017.

Average prices in the resale market continued to demonstrate steady growth last year, with annual price gains of 1% in the Lethbridge & District region (which encompasses Lethbridge and the surrounding area).

Average Re-Sale Housing Prices
Alberta Mid-to-Large Sized Cities



SOURCES

Canada Mortgage and Housing Corporation.

Canadian Real Estate Association.

Alberta Mid-to-Large Sized Cities
Single/Semi-Detached Housing Start Comparison

Area	2017	2016	% Change
Wood Buffalo	1,022	111	821%
Grande Prairie	192	142	35%
Red Deer	241	185	30%
Calgary	5,741	4,441	29%
Edmonton	6,938	6,327	10%
Medicine Hat	127	125	2%
Lethbridge	531	530	0%

The average price of a resale transaction in this area was approximately $270,000 in 2017, up from $267,000 the year prior.

Resale housing prices were up by 1% across the province over the same time period. Among all mid-to-large sized cities in Alberta, price growth was greatest in Edmonton (4%) while Fort McMurray witnessed the largest pullback with prices receding by 15%.

Sales volumes in the Lethbridge & District area were down 1% on a year-over-year basis last year (2,555 in 2017 vs 2,573 in 2016). This figure was not aligned with the provincial trend over the same period, as total sales were up 10% in Alberta, led by a 15% increase in Edmonton transactions.

2.2 Key Indicators for Lethbridge
2.2.1 Consumer Price Index and Inflation

Alberta CPI, % Change Year-Over-Year

Institution	2017	2018 (forecast)	2019 (forecast)
Statistics Canada	1.6%	-	-
ATB Financial		2.3%	1.9%
TD Economics		1.8%	2.1%
CIBC Economics		2.1%	2.1%
BMO		2.0%	2.1%

Canada CPI, % Change Year-Over-Year

Institution	2017	2018 (forecast)	2019 (forecast)
Statistics Canada	1.6%	-	-
RBC Economics		1.8%	2.0%
TD Economics		1.8%	2.0%
CIBC Economics		2.1%	2.1%
BMO		2.2%	2.1%

- Statistics Canada reported that the Alberta Consumer Price Index (CPI) increased by 1.6% in 2017, which was equivalent to the national increase over the same time period
- Price increases in the province were led last year by gasoline (+13.2% year-over-year), natural gas (+13.1%), and reading materials (+7.1%)
- The largest price declines in Alberta in 2017 were edible fats and oils (-6.4%), home entertainment equipment, parts and services (-5.7%), and preserved fruit and fruit preparations (-5.5%)
- Alberta had one of the lowest CPI increases among all provinces last year
- Projections for 2018 suggest the cost-of-living in Alberta will be roughly in line with the national figure, with an average estimate of 2.0% (aggregate of the five Alberta projections listed above)

2017 Provincial CPI % change year-over-year (highest to lowest)

Province	% Change
Newfoundland	2.4%
New Brunswick	2.3%
British Columbia	2.1%
Prince Edward Island	1.8%
Ontario	1.7%
Saskatchewan	1.7%
Manitoba	1.6%
Alberta	1.6%
Nova Scotia	1.1%
Quebec	1.0%

SOURCES

Statistics Canada (CANSIM table 326-0021)

BMO Provincial Economic Outlook (issued Feb 9, 2018)

RBC Economics - Economic and Financial Market Outlook (issued Dec 2017)

RBC Economics – Provincial Outlook (issued Dec 2017)

CIBC Economics – Forecast Update (issued Jan 10, 2018)

TD Economics - Provincial Economic Forecast (issued Dec 14, 2017)

ATB – Alberta Economic Outlook (issued Nov 2017)


THE GATE CHURCH

2.2.2 Labour Market (Employment)

Labour Force statistics are helpful in assessing the economic strength of an area. Generally speaking, an area with a flourishing economy will have a relatively low unemployment rate and a high participation rate. The unemployment rate is calculated by dividing the number of employed individuals in a given area by the size of the labour force while the participation rate measures the number of individuals age 15 and above who are either employed or are actively looking for work. Alberta is broken into seven employment regions and Lethbridge is part of the Lethbridge-Medicine Hat employment region.

This section shares labour metrics (unemployment rates, participation rates, and workforce data) for both the employment region as well as the Lethbridge census agglomeration, an area defined by Statistics Canada, which primarily includes the city of Lethbridge.

HIGHLIGHTS:

- The unemployment rate in the Lethbridge-Medicine Hat economic region declined by 1.2 percentage points in 2017 on a year-over-year basis (5.7% in 2017 vs. 6.9% in 2016)
- The Lethbridge-Medicine Hat region had the lowest unemployment rate among all Alberta economic regions in 2017
- The participation rate declined by 3.0 percentage points in 2017, and is the lowest figure among all economic regions in Alberta (66.5%)
- The size of the labour force declined by 4.4% in 2017

LABOUR FIGURES

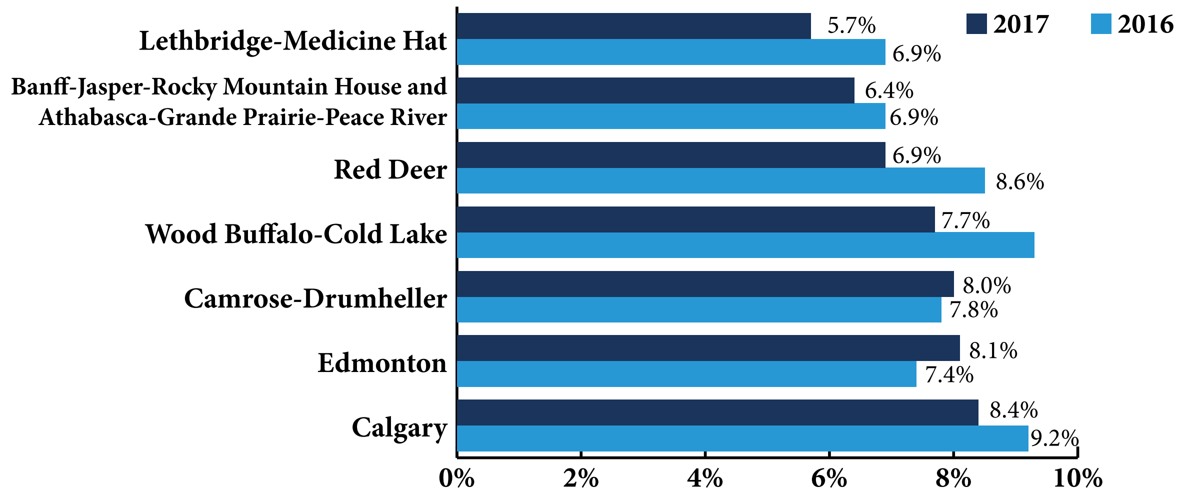
The annual unemployment rate in the Lethbridge-Medicine Hat region was 5.7% in 2017, down 1.2 percentage points on an annual basis (6.9% in 2016). This figure is the lowest comparable in the province among all economic regions for the second consecutive year.

Labour markets in Alberta improved in 2017, as the provincial unemployment rate averaged 7.9% in 2017, down from 8.2% the year prior. The improving conditions were geographically dispersed, as five of the seven economic regions in the province recorded a lower unemployment rate over the past twelve months. While improving conditions are a welcome sight, there is still scope for further gains as Alberta had the highest unemployment rate among all provinces outside of Atlantic Canada in 2017.

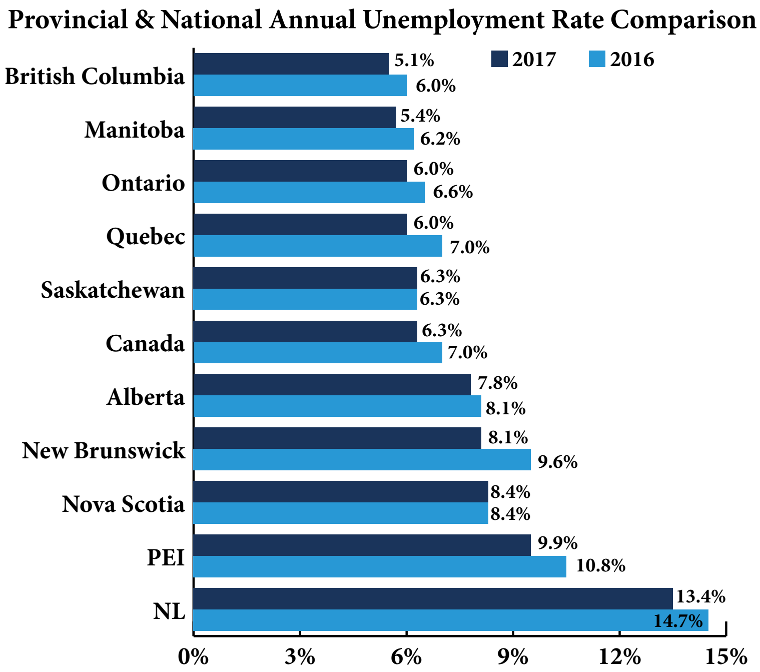
The Canadian economy made strong gains last year, finishing with an annual unemployment rate of 6.4%, the lowest national figure in years. Strong conditions were broad-based, with eight of ten provinces incurring a lower annual jobless rate.

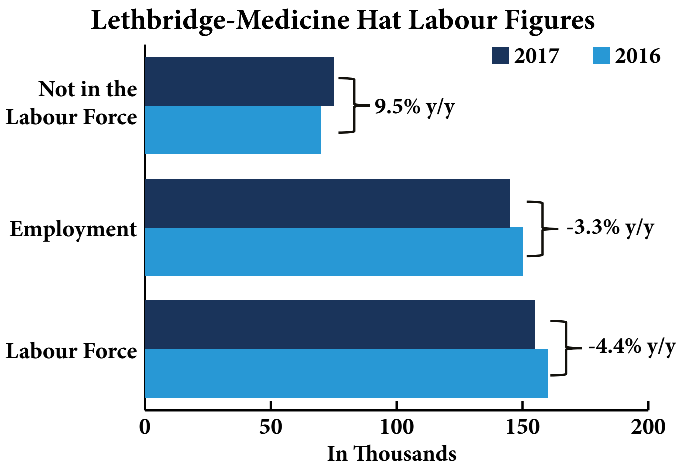
While a lower unemployment rate is in theory a positive, supporting data creates a somewhat murkier picture locally. According to Statistics Canada data, the labour force (-4.4%) and overall employment (-3.3%) both declined in the Lethbridge-Medicine Hat region in 2017 while the number of individuals reporting they are "not in the labour force" increased substantially (up 9.5% year-over-year). These movements were borne out by declines in both the annual participation rate (-3.0%) and employment rate (-2.0%). The participation rate had trended upwards in

Annual Unemployment Rate Comparison - Alberta Economic Regions



2015-16, but after the decline in the most recent year it has reclaimed the status as the lowest comparative measure in the province. A confluence of these factors suggests that the lower unemployment rate had more to do with fewer people looking for work as opposed to an increase in the number of jobs. While the cause of this shift remains unclear, this trend is worth monitoring moving forward.



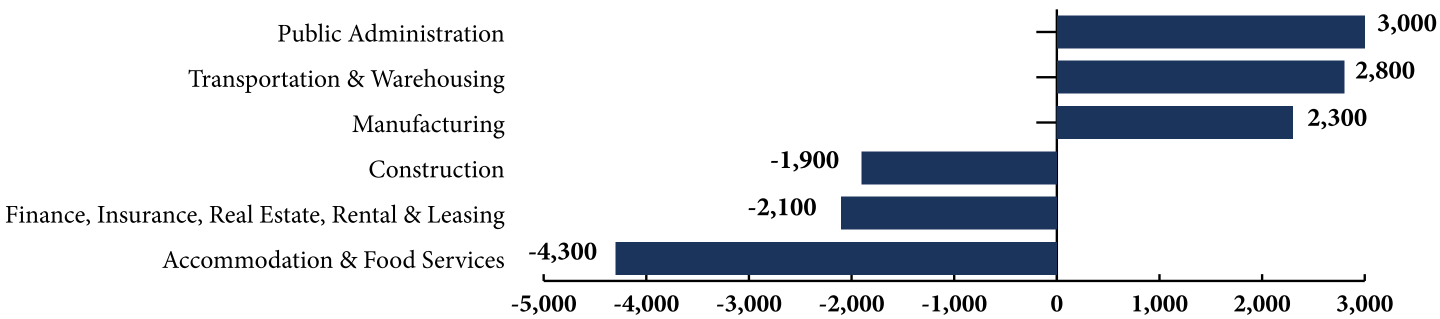


JOBS BY SECTOR

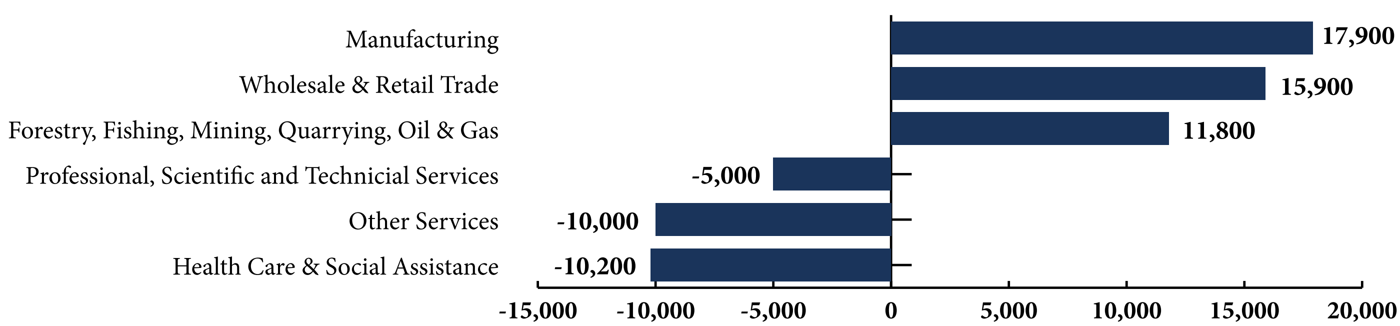
The Public Administration sector witnessed the largest absolute increase in employment in the Lethbridge-Medicine Hat region last year, as employment was up by 3,000 in December 2017 vs the same time one year ago. This was followed up by employment gains in the Transportation & Warehousing (2,800) and Manufacturing (2,300) industry sectors. The Accommodation & Food Services sector recorded the largest decline in the region last year, with employment as of December 2017 down 4,300 compared to the year prior; Finance, Insurance, Real Estate, Rental & Leasing (2,100) and Construction (1,900) also witnessed substantial pullbacks over the same time frame.

Provincially, the sectors recording the largest job gains last year were Manufacturing (17,900), Wholesale & Retail Trade (15,900), and Forestry, Fishing, Mining, Quarrying, Oil & Gas (11,800) while Health Care & Social Assistance (10,200), Other Services (10,000) and Professional, Scientific and Technical Services (5,000) witnessed the largest losses.

Lethbridge-Medicine Hat Employment by Industry - Dec 2017 vs. Dec 2016



Alberta Employment by Industry - Dec 2017 vs Dec 2016



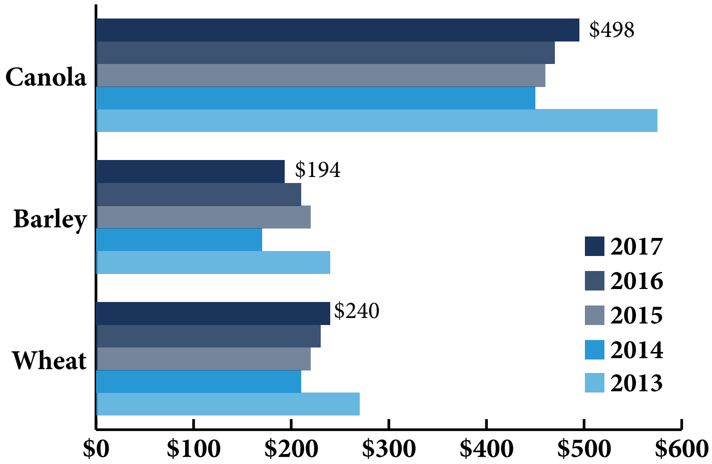
SOURCES

Statistics Canada.

2.3 Industry Trends
2.3.1 Agricultural Markets

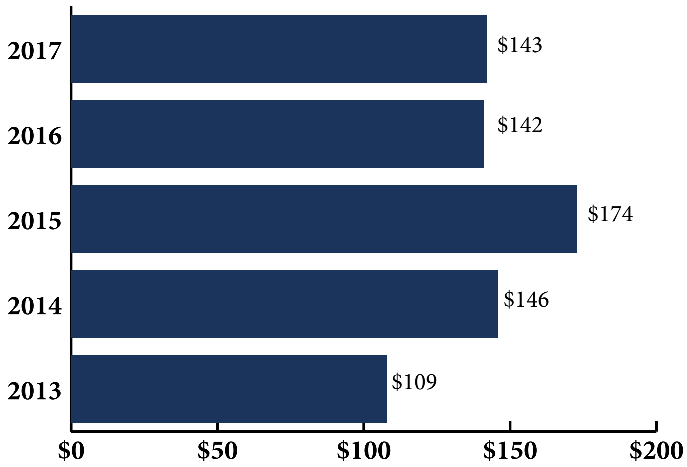
HIGHLIGHTS
- Trade-based concerns (NAFTA) and opportunities (CETA, CPTPP) will weigh heavily on the minds of agricultural producers in 2018
- Wheat and canola prices made incremental gains in 2017, increasing on an annual basis by 4% and 5% respectively
- Cattle prices were stable from a year-over-year perspective (up 1%), but were down significantly compared to the 2015 comparatives (-18%)

Average Alberta Crop Prices



Information derived from Statistics Canada CANSIM table 002-0043.
Figures presented represent annual averages.
All prices reported in metric tonnes.
Wheat prices exclude durum.

Average Alberta Cattle prices per Hundredweight



Information derived from Statistics Canada CANSIM table 002-0043.
All prices reported in dollars per hundredweight.

Figures presented represent annual averages.

NOTES: The prices provided do not account for fee deductions (i.e. storage, transportation and administration costs).

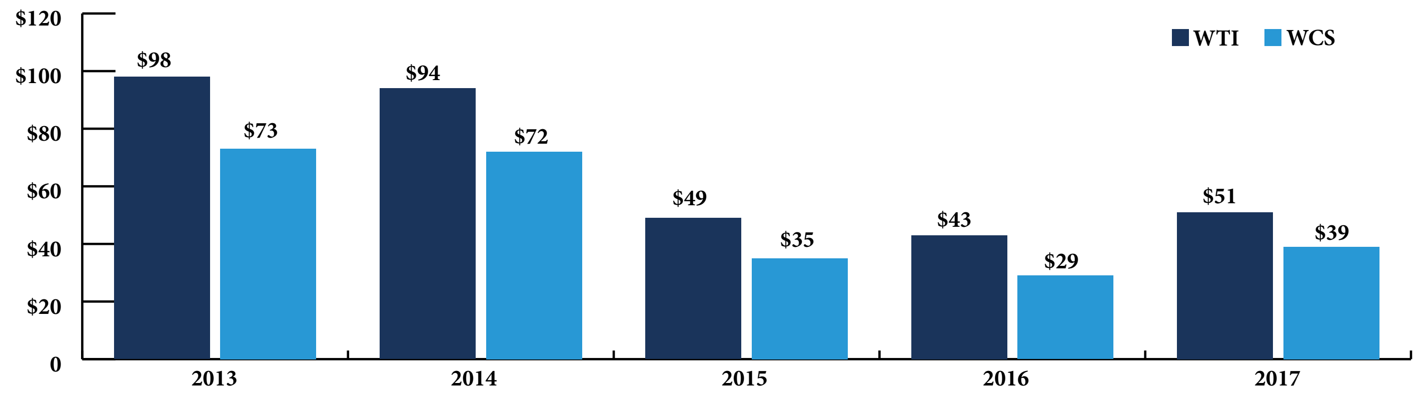
2.3.2 ENERGY MARKETS (OIL AND GAS)

Oil and gas play a central role in the Alberta economy, but have a substantially less significant impact on the Lethbridge market. That said, this sector is central to the health of the overall Alberta economy and its indirect impact can affect all provincial jurisdictions in a multitude of ways.

HIGHLIGHTS

- Oil prices strengthened in 2017, although Western Canadian Select (WCS) still trades at a discount to West Texas Intermediate (WTI) due in part to transportation bottlenecks
- Prices for both WTI & WCS remained nearly 50% below highs attained in 2013
- WTI prices are trending upwards due to supply restrictions coupled with strong demand
- Prices are projected to increase in 2018, although WCS price gains could continue to be constrained by a lack of pipeline capacity

West Texas Intermediate (WTI) & Western Canadian Select (WCS) Oil Prices



West Texas Intermediate (WTI) Oil Price Forecasts

Institution	2018 (forecast)	2019 (forecast)
BMO	$58	$60
CIBC	$64	$59
Scotiabank	$57	$60
TD	$59	$57

2.3.3 Public Sector

Note: The information in this section will be updated in the next revision cycle of this Outlook report, as current data is incomplete.

Public sector employment has been the stabilizing force behind the Lethbridge economy over the years. It tends to experience less turnover than the private sector and pays competitive wages which serve as a catalyst for other secondary industry. Nine of the ten largest employers in Lethbridge are public sector or not-for-profit (NFP) organizations, which further solidifies the important role these institutions play in shaping the local labour market.

HIGHLIGHTS

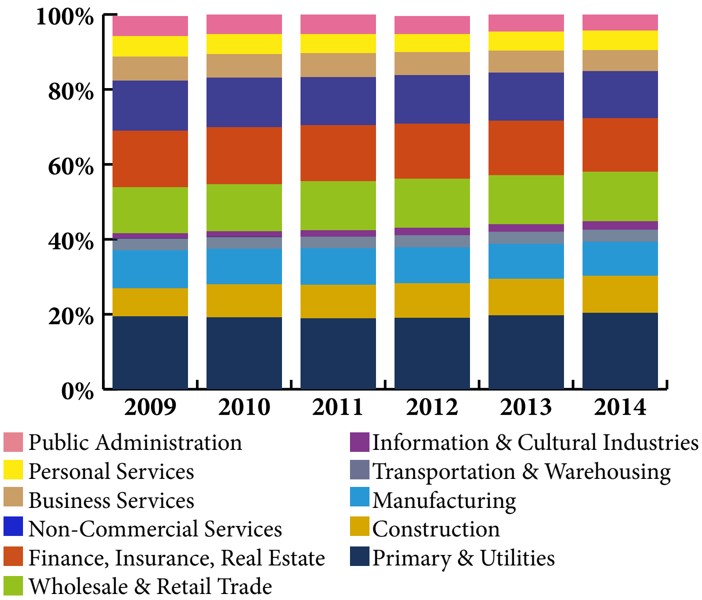
- As of 2015, there were 13 public sector/not-for-profit (NFP) major employers in Lethbridge with a total of 14,169 staff
- This represents a 7% increase from 2013 and a 49% jump from 2006
- Public sector employment in Alberta increased by 12% and 28% over the same time periods
- Of the 13 public sector major employers, only one reduced its staff number over the past two years

The figures for public sector employees in Lethbridge are from the Major Employers Survey which is tabulated on a biennial basis by Economic Development Lethbridge. The results of the 2015 survey show that there are 13 public sector/not-for-profit (NFP) major employers in the city with a combined staff total of 14,169. This is up 7% from 2013 and 49% from 2006, which is the closest data we have to offering a ten-year comparative. To contrast, the Alberta public sector increased in size by 12% in the two-year timespan between December 2013 and 2015, and experienced gains of 28% between December 2006 and 2015. These comparatives suggest that the expansion of the public sector in Lethbridge has not exceeded the provincial benchmark over the past few years, but has been an outsized source of employment growth over the past decade.

Employment data from Alberta Health Services and the University of Lethbridge augment the importance of the public sector in the city. As these two institutions have been the largest employers in Lethbridge since 2006. Alberta Health Services has increased its number of employees by 64% since that time, while the University of Lethbridge has witnessed a 41% jump in its staff count. The net result of this has been an additional 1,912 jobs here in Lethbridge.

The 2014 Conference Board of Canada Mid-Sized Cities Outlook indicates that public administration in Lethbridge accounts for 4.5% of GDP. The figure is down by 0.2% on a year-over-year basis and represents a reduction of 0.6% from the 2009-2013 five-year average of 5.1%. It should be noted that these figures do not include contributions from health care and education. That said, it is interesting to note that output from other public services appear to be receding in recent years.

Lethbridge GDP by Sector



SUMMARY

The public sector continues to have a stabilizing effect on the local economy as demonstrated by the most recent Major Employers Survey, which indicates that nine of the ten largest employers in the city are in the public sector. Public sector major employers in Lethbridge have increased their head count by 7% since 2013, representing a healthy increase in employment over this timespan. Employment data from Alberta Health Services and the University of Lethbridge indicate substantial increases in employee totals since 2006, speaking to the important role these institutions play in the local labour market.

SOURCES

Economic Development Lethbridge. (25 Feb. 2016). 2015 Major Employer Survey. Retrieved from http://www.chooselethbridge.ca/charts/D.31.a_2016.pdf

Conference Board of Canada. (30 June 2015). 2015 Mid-Sized Cities Outlook.

2.3.4 Development Sector

HIGHLIGHTS

- There has been a steady decline in the land area consumption rate for residential growth.
- The average lot size has shrunk by 100 sq. meters over the past 25 years for detached single family dwellings.
- The number of permits issued for greenfield development have remained stable.
- Two story homes remain the most popular type of new development for single family dwellings in Lethbridge

LETHBRIDGE DEVELOPMENT HISTORY

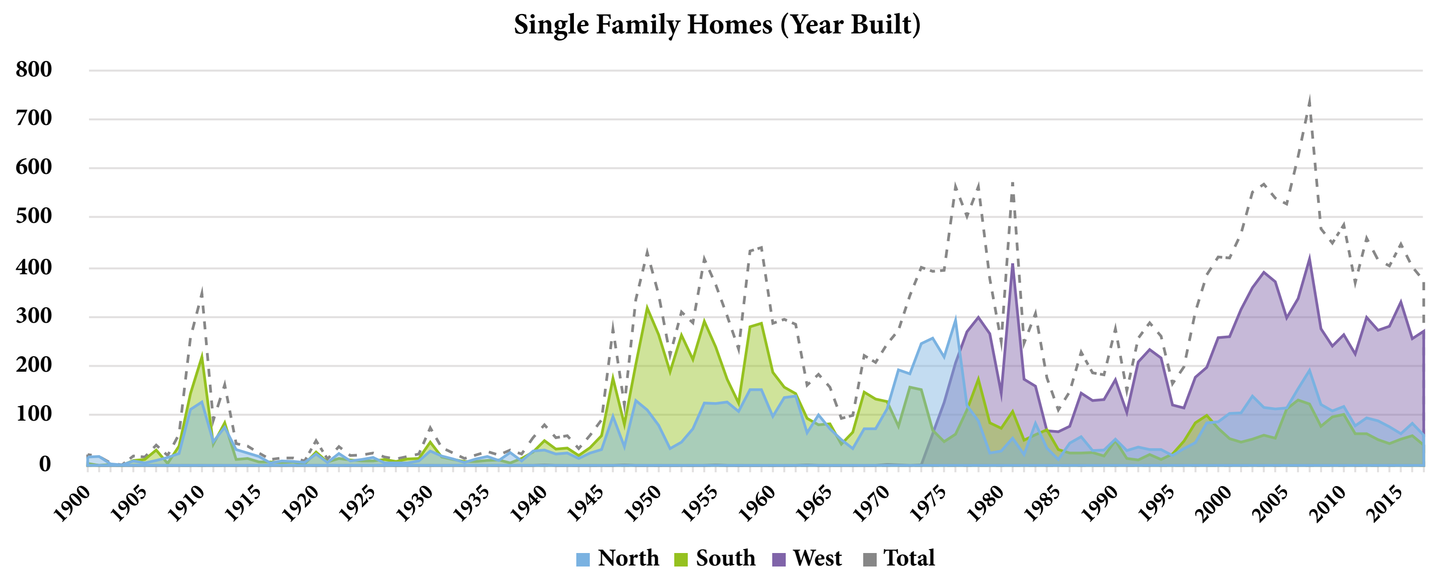
Lethbridge originally developed as a tiny coal mining settlement known as "Coalbanks" in the 1880's, with development predominantly taking place in the river valley next to the mining operations. This original development is all but gone and the development that we are familiar with today dates back to 1885. Early Lethbridge housing development spread out from the core with housing for the more affluent located to the south and housing for poorer segments of the population was left to the land adjacent to industry and railways.

The first dozen years of the 20th century constituted a period of unparalleled prosperity for Lethbridge. The Canadian economy saw strong growth from 1896 to 1913 in a period known as the wheat boom.[1] The population rose approximately 36% per year from 2,072 in 1901 to 11,070 in 1913.

Growth in Lethbridge would slow drastically from the onset of World War I in 1914 and throughout the Great Depression in the 1930s. Swift expansion of the city would not occur until after World War II. Post World War II was a period of strong growth for the Canadian economy and Lethbridge grew substantially. For the first 15 years after the war, housing development increased substantially across Canada with the housing stock rose by nearly 50%.[2] Lethbridge was no exception, adding a significant amount of housing as new developments in both south and north Lethbridge begun.

By the 1960's the "golden era" of development came to an end. Inflation across Canada rose into the double digits and as a result, the economy slowed down, unemployment rose, and development stalled.[3] This short lived "bust" was quickly followed by an oil boom beginning in the 1970s. Growth and development were spurred by the decision to build the university campus in west Lethbridge.

This boom came to an abrupt end in the mid-1980s as world oil prices dropped severely.[4] Again, this bust was short lived as Alberta soon saw a recovery beginning in the 1990s with the increasing price of oil. Lethbridge followed suit, growing steadily until the market turmoil of the late 2000s. Recent development in Lethbridge has followed a pattern of primarily low-density development taking place on the edge of the city. A development model that has emphasized choice and has seen growth on 11 fronts in the west, north, and south sides of the city.

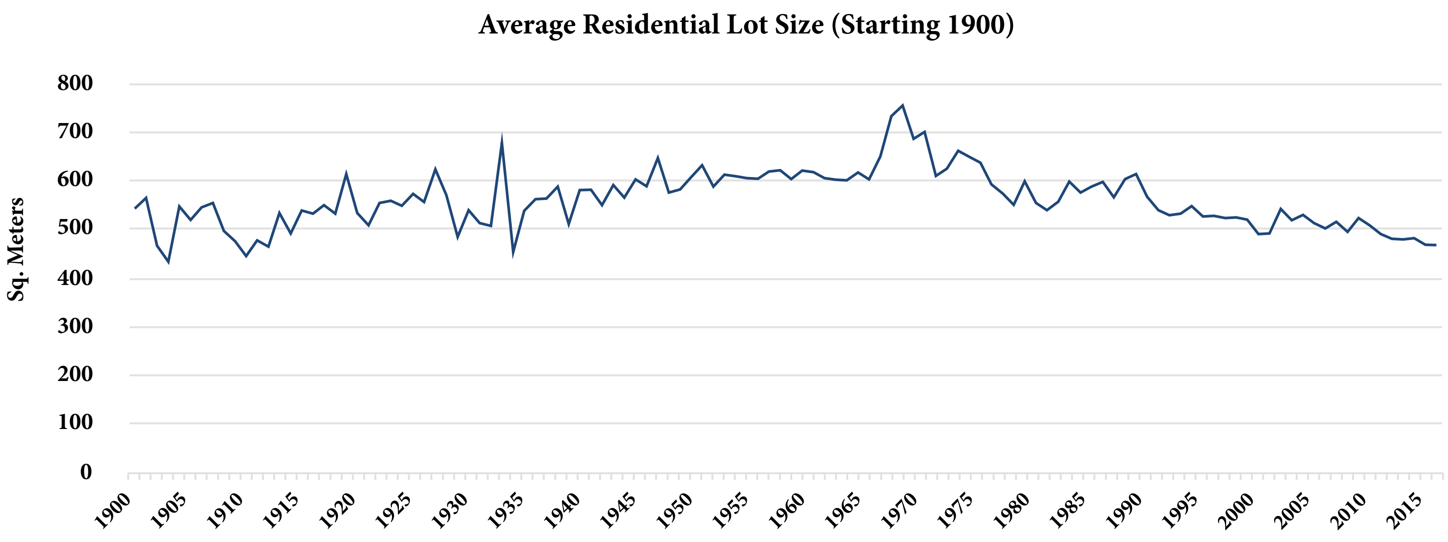


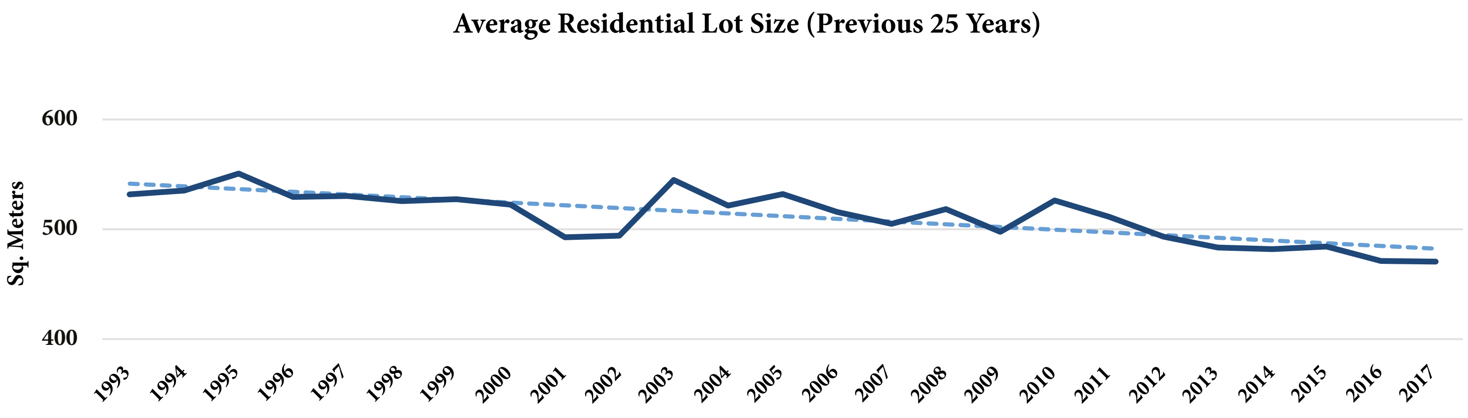
RESIDENTIAL DEVELOPED LAND

Beginning in 2006, the total number of lots each year is consistent with the number of new home starts. While the number of new lots and related new home starts are strongly correlated, there is a decline in the amount of land area that is being consumed for residential growth.
Since 1990 the average lot size for single family homes in Lethbridge has declined by more than 25%. This correlates with the overall amount of land that has been developed in Lethbridge for new neighbourhoods. This is a function of land and housing affordability as over that same ten year period lot sizes have consistency gotten smaller.

RESIDENTIAL DEVELOPED LAND

Residential lot sizes have shown a decline over the past quarter century. Residential lot sizes which averaged over 600 square meters in the early 1990s find themselves below the 500 sq. meter for the majority of the last decade. This reduction in land consumption per lot may be driven by several factors including land and infrastructure costs associated with greenfield development. When observing the average lot size of development in Lethbridge over the past century sub 500 square meter development periods were often during times of economic decline until a persistent decline began in the early 1990s.





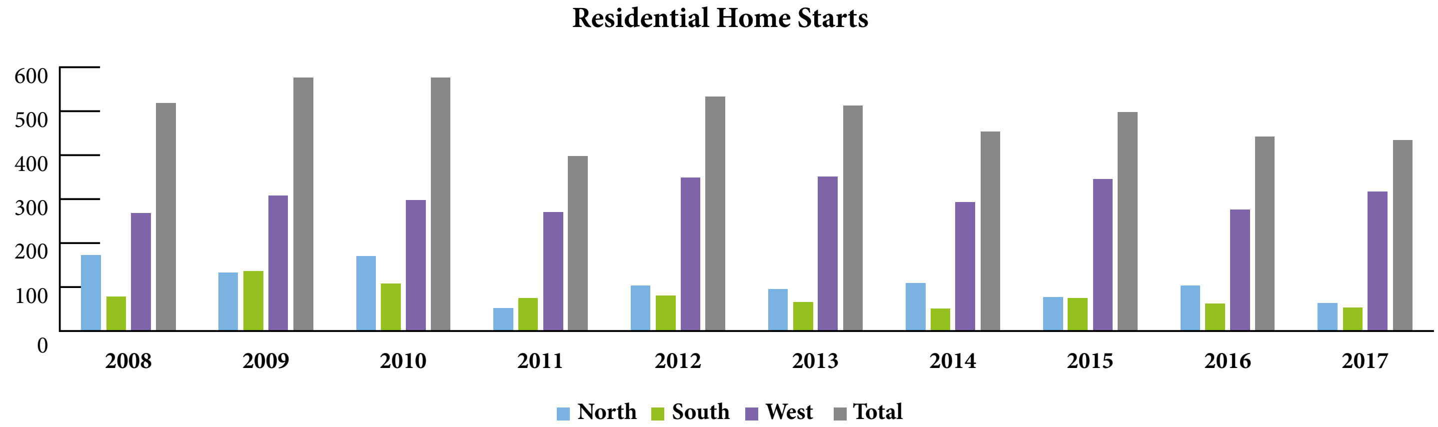
HOUSING STARTS

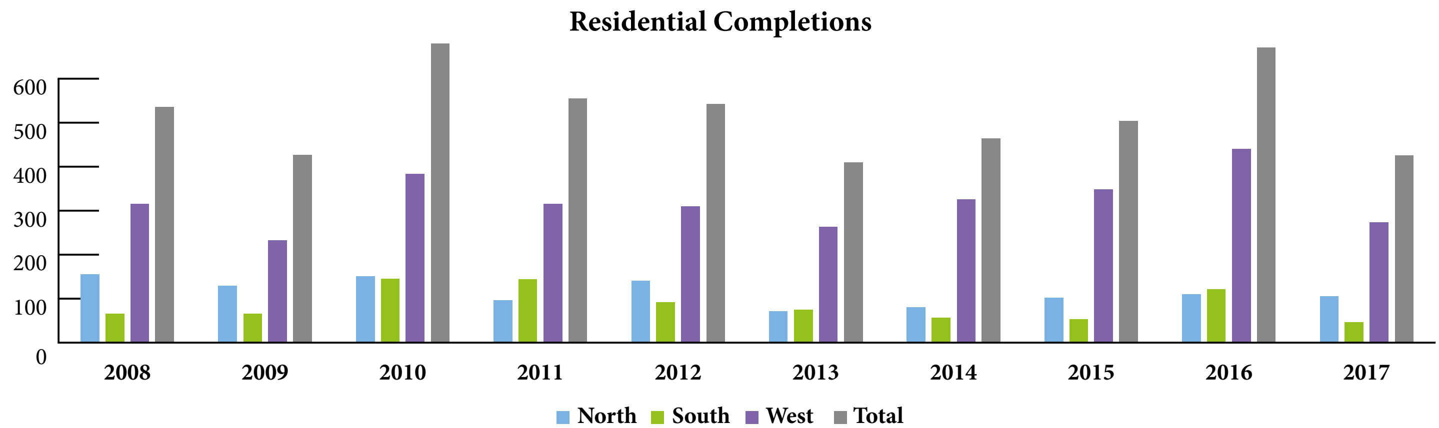
The data within this section was provided by Planning and Development Services and is based on residential building permits. A 'Housing Start' within this section is defined as a residential building permit issued by the City of Lethbridge. These figures represent the number of permits issued whose projects were not cancelled and remain valid as of December 31, 2017. 'Housing Completions' are defined as a residential building permit which has received its final inspection and is ready for occupancy.

The majority of development within the City of Lethbridge takes place in "greenfield" locations. Greenfield development is the creation of new planned communities in areas that were previously undeveloped or used for agricultural purposes.

Over time the number of permits issued for various types of greenfield development have remained relatively stable. This may be in part due to the diversity of the local economy based in education, government and agriculture. Between 2008 and 2017 the number of housing permits issued has ranged from a low of 397 in 2011 to a high of 576 in 2009 and 2010.

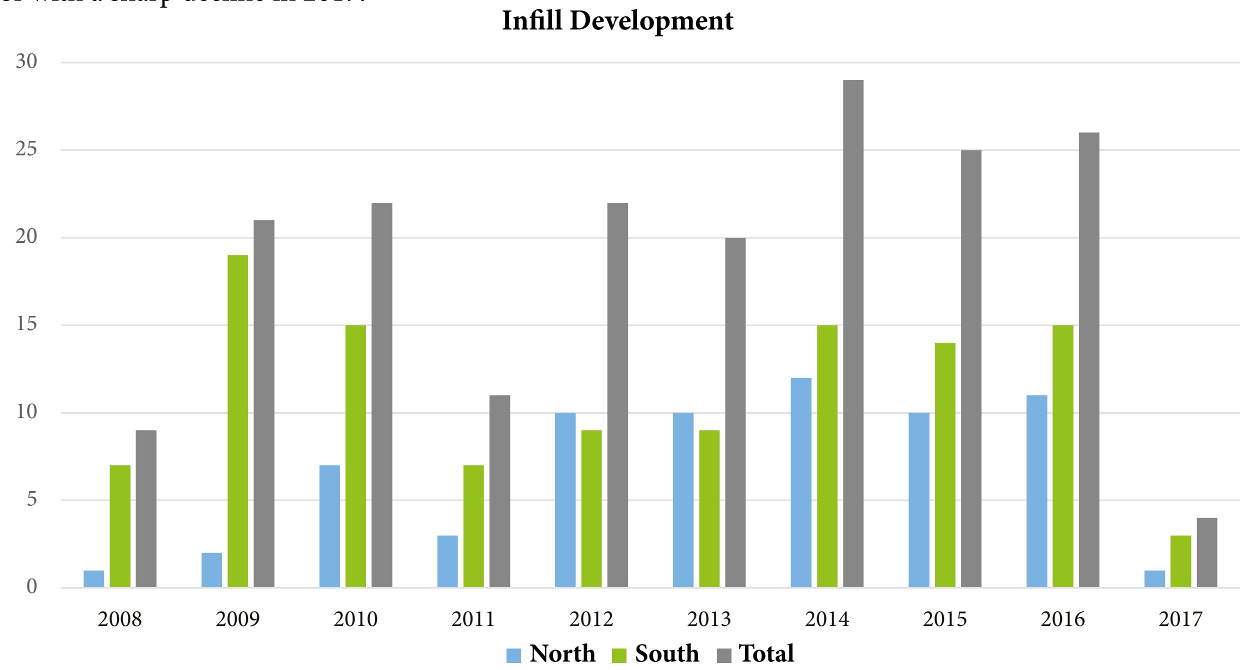
Typically the range of permits issued in Lethbridge for new home construction is in the realm of 500 per year. A specific cycle or pattern is difficult to discern in these numbers. However, there is a correlation between the number of lots available for residential development and the number of permits issued.





INFILL DEVELOPMENT

Infill development is based on the number of residential building permits issued within mature neighbourhoods. Infill development represents a very small portion of the new home starts in Lethbridge. Over the past decade there has been a minor increase in the number of infill permits applied for with a sharp decline in 2017.



HOUSING TYPES

The information within this section was derived from Assessment and Taxation. Quantities are based on the net change in property assessments.

The distribution of housing types vary significantly across the three main sectors (west, north, and south). Older development areas such as the north and south sections of Lethbridge have a substantial number of bungalow dwellings. Meanwhile, west Lethbridge which was not developed until the 1970s consists mostly of split entry homes.

Growth in the north and south sectors over the past five years has been limited compared to the west sector with a majority of new development in all sectors consisting of two story and split entry homes. Two story homes have shown the greatest amount of growth with an average of 235 new units reaching completion per year.

Revision Note: The figure titled "Share of Residential Dwelling Unit Growth by Housing Classification" was incorrectly labelled. The previous graph displayed the net growth of properties by assessment classifications. The revised figure displays the estimated net growth of residential units derived from assessment classifications.

Share of Residential Dwelling Unit Growth by Housing Classification

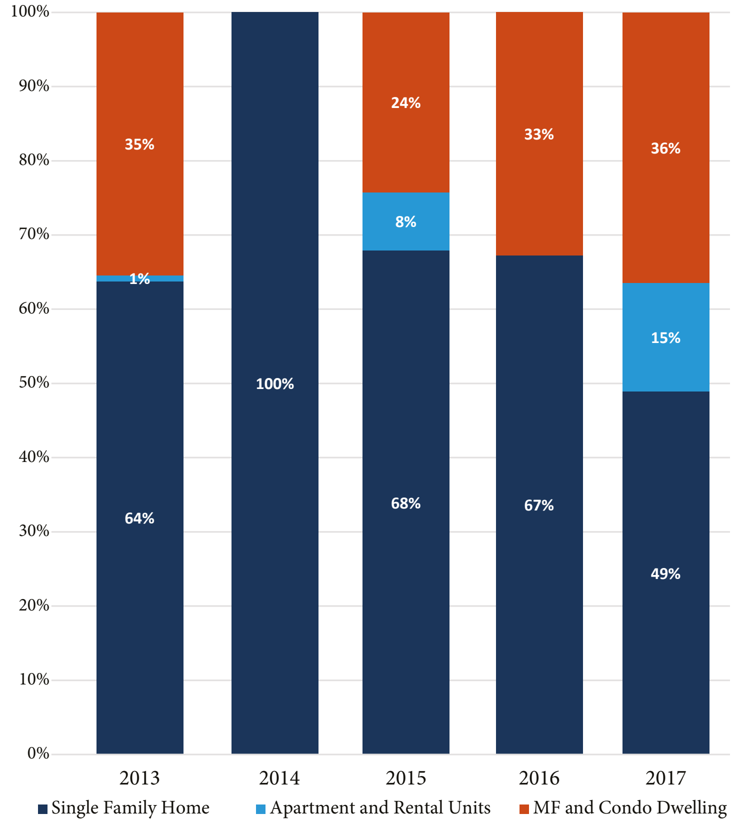


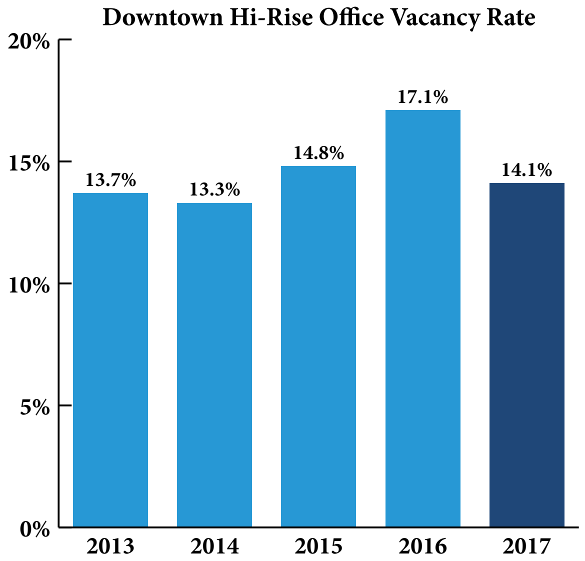
Photo credit: Jeff Hinman Photography

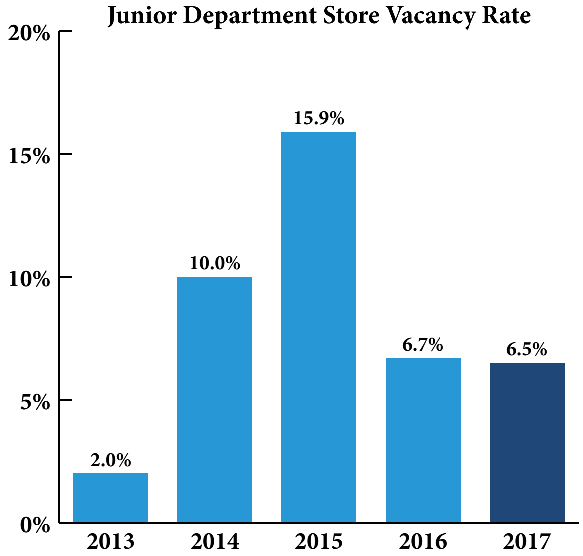
NON-RESIDENTIAL ACTIVITY

Downtown Lethbridge is home to both hi-rise office properties and department stores. The market has remained relatively flat at this level of inventory over the past three decades.

The vacancy rate for downtown hi-rises peaked in 2016 at 17.1% and has shown a decrease to 14.1% in 2017. However, several offices did not report their vacancy rates to the City of Lethbridge, skewing the rate downwards.

Junior department store vacancy rates peaked at 15.9% in 2015. This decreased significantly in 2016 as new department stores opened along Mayor Magrath Drive South.





SUMMARY

Lethbridge continues to maintain a stable development environment and has not seen dramatic changes in residential constructions despite a small decline in new residential building permits in 2017. Commercial development has remained strong in the Lethbridge area with multiple large scale projects currently underway.

SOURCES

1 McInnis, M. (n.d.). Canadian Economic Development in the Wheat Boom Era: A Reassessment. Retrieved from Queen's University.

2&3 Slater, D. W. (n.d.). Setting the Scene: The Post-WWII Canadian Economy.

4 CBC. (n.d.). Boom and Bust in Alberta. Retrieved from CBC History: http://www.cbc.ca/history/EPISCONTENTSE1EP17CH3PA1LE.html

Johnston, Alex and den Otter, Andy A. Dempsey, Hugh A., Editor. Lethbridge Centennial History. City of Lethbridge and Whoop-up Country Chapter Historical Society. Lethbridge, Alberta. 1985

2.4 Economic Forecasts
2.4.1 Population Forecasts

2017 MUNICIPAL CENSUS RESULTS AND CURRENT CONDITIONS

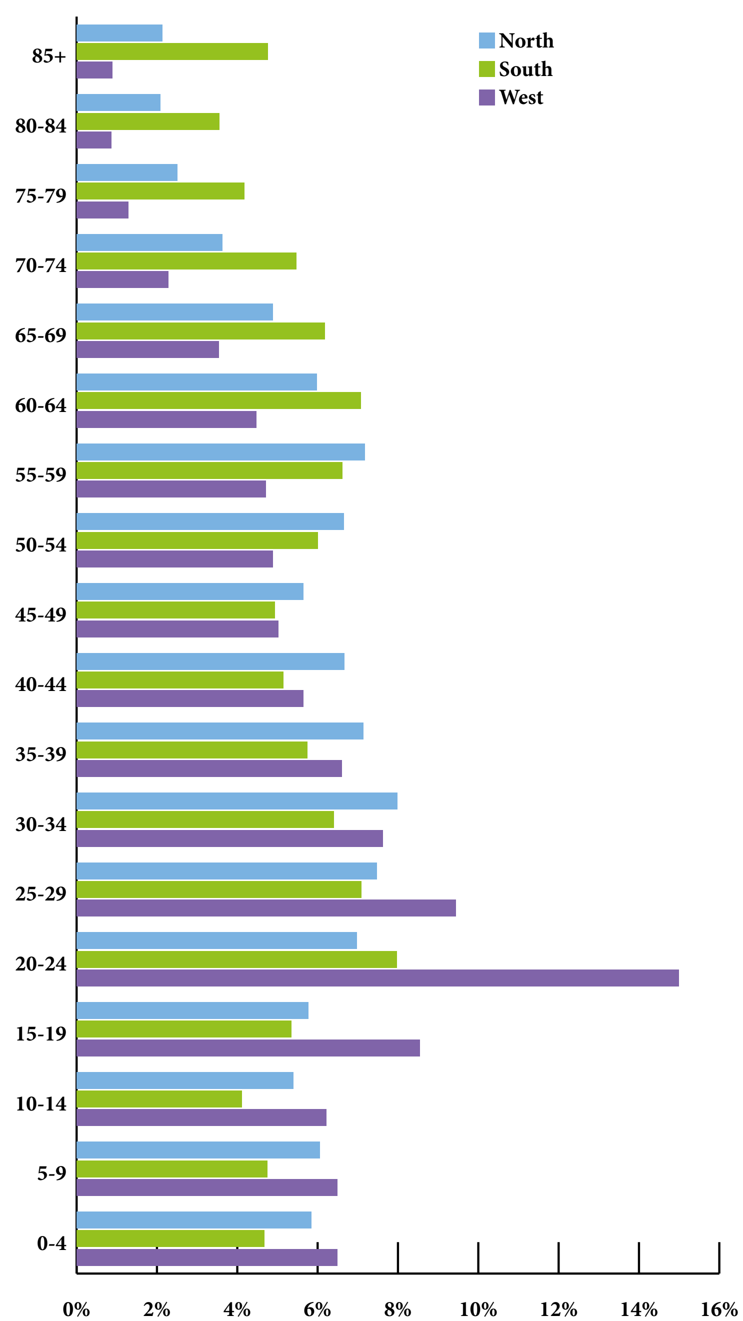
In 2017, the total population of Lethbridge derived from the annual municipal census was 98,198. This represented an overall growth rate of 1.41% from 2016 and an average annual growth rate of 1.8% over the previous twenty-three years (since 1994).

West Lethbridge is the largest of the three sectors of the city (the others being north and south), with a population of 39,085. It has enjoyed most of the city's growth since it was initially developed in the early 1970's and there is a number of neighbourhoods that are currently under development in this sector. North Lethbridge has seen a steady pace of growth in previous years and currently has a population of 27,453. The residential communities of Blackwolf and Legacy Ridge are currently under development in north Lethbridge.

South Lethbridge has a population of 31,660 and over the past few years has had a relatively slow rate of growth; even experiencing a small population decrease of 60 residents between 2016 and 2017. This can be attributed to the fact that there are currently few areas for new residential expansion in south Lethbridge, as the South Gate neighbourhood is nearly entirely developed and the remaining utility servicing capacity is limited in this area. The Arbour Ridge and South Ridge/Sandstone/Gold Canyon communities, located south of Six Mile Coulee, cater to the upper, luxury end of the local housing market. The luxury housing market is relatively small in Lethbridge, so growth in these two communities has been slow.
This total population was further broken down into age cohorts of 5 years. The impact of Lethbridge's two post-secondary institutions is evident when these cohorts are considered, as the 20-24 year old cohort is the largest age cohort consisting of just over 10,000 people. In contrast the age cohorts that are above 24 years old comprise smaller portions of the population. This phenomenon is consent throughout censuses that have been conducted in the past as well, suggesting that students move here, are educated in their early twenties and then move elsewhere when their education is complete.

As shown in the table below, the 15-19 year old and 20-24 year old cohorts also make up a relatively large proportion of the total population of west Lethbridge with these cohorts forming 8.6% and 15.0% of the total population, respectively. The proportion of the 20-24 year old cohort in west Lethbridge is approximately double that found in the north and south sectors of the city (7.0% and 8.0%). This can be attributed to the University of Lethbridge being located in west Lethbridge and a large number of students living near the campus.

2017 Age Proportion by Sector



West Lethbridge also has a greater proportion of its population under the age of 15, with approximately 19% of its population in this age group. South Lethbridge has the smallest proportion of children with 13% of its total population in this age group. On the other end of the spectrum, south Lethbridge has a greater proportion of residents who are 60 years of age and older than the other two sectors of the city. Approximately 31% of the total population of south Lethbridge is 60 years of age and older while this same age group forms just over 21% of the population of north Lethbridge and only 13% of the population of west Lethbridge. While Lethbridge is still relatively young, the senior's segment of the population is slowly growing as a whole. In 2015 residents over 60 year of age accounted for approximately 20% of the population, in 2017 this has increased to a share of almost 21%. This is expected as an aging population is an overall trend in the Country and despite having a relatively young population, Lethbridge is not immune.

In addition to students, west Lethbridge also contains a large number of young families, which contrasts to south Lethbridge which contains a greater share of senior citizens. An older population accompanied with there being few new residential development areas accounts for the slow pace of south Lethbridge growth and the comparatively rapid pace of west Lethbridge growth.

When compared to other Canadian cities, Lethbridge is sometimes considered to be a community with a large population of senior citizens, but this is simply not the case. In fact, it has a very large population of children and young adults and a slightly below average population of senior citizens. In the 2016 Federal Census it was found that, when compared to the other 34 Census Metropolitan Areas in Canada (CMAs – The largest metropolitan regions in the Country), the Lethbridge region had the highest proportion of its population in age cohorts that were under 15 years of age (19.11%) and between the ages of 15 to 24 years of age (13.97%). The table to the right provides a summary of the age cohorts in each CMA.

For the proportion of those 65 years of age and older Lethbridge ranked 23rd of 35. The 2016 census also indicated that Lethbridge had the 2nd lowest proportion of residents between the ages of 25 to 64 years of age, which are considered the prime working years.

Proportion of Age Cohort by Census Metropolitan Area 2016 Federal Census

CMA Name	Age Cohort			
	0-14 Years	15-24 Years	25-64 Years	65 Yrs & Older
Abbotsford - Mission	18.44%	12.61%	52.63%	16.32%
Barrie	17.90%	13.42%	54.39%	14.29%
Belleville	15.87%	11.58%	52.45%	20.10%
Brantford	17.59%	12.03%	52.78%	17.61%
Calgary	18.77%	11.93%	58.31%	10.99%
Edmonton	18.40%	12.72%	56.57%	12.31%
Greater Sudbury	15.54%	12.16%	53.99%	18.31%
Guelph	16.97%	13.63%	54.25%	15.16%
Halifax	15.01%	13.03%	56.30%	15.66%
Hamilton	16.39%	12.41%	53.34%	17.86%
Kelowna	14.16%	11.59%	52.88%	21.38%
Kingston	14.84%	12.58%	53.18%	19.40%
Kitchener - Cambridge - Waterloo	17.64%	13.68%	54.21%	14.48%
Lethbridge	***19.11%***	***13.97%***	***51.37%***	***15.56%***
London	16.44%	13.30%	53.19%	17.07%
Moncton	15.69%	11.51%	55.44%	17.35%
Montréal	16.87%	12.12%	54.62%	16.39%
Oshawa	18.23%	13.01%	54.15%	14.61%
Ottawa - Gatineau	17.16%	13.01%	54.81%	15.02%
Peterborough	14.66%	12.32%	50.81%	22.21%
Québec	15.56%	11.21%	54.03%	19.20%
Regina	18.65%	12.65%	55.09%	13.61%
Saguenay	15.04%	10.57%	53.82%	20.57%
Saint John	16.09%	11.61%	54.12%	18.18%
Saskatoon	18.87%	13.53%	54.75%	12.85%
Sherbrooke	16.15%	12.66%	51.76%	19.43%
St. Catharines -Niagara	14.56%	12.04%	51.63%	21.77%
St. John's	15.76%	12.10%	57.30%	14.83%
Thunder Bay	14.60%	12.28%	53.37%	19.75%
Toronto	16.63%	13.13%	55.76%	14.48%
Trois-Rivières	14.29%	11.32%	52.10%	22.29%
Vancouver	14.70%	12.57%	57.01%	15.72%
Victoria	13.12%	11.61%	54.13%	21.14%
Windsor	16.71%	13.35%	52.70%	17.25%
Winnipeg	17.06%	13.28%	54.23%	15.43%

Data from the 2016 Federal Census was used for this national comparison, as this data is standardized across the country. However, as demonstrated in Lethbridge's 2016 Municipal Census, the proportion of people ages 15 to 24 is even greater than what is shown in the Federal Census. According to the Municipal Census these ages make up 17.4% of the total population and are 3,781 residents greater than what is indicated in the Federal Census. The difference between the 2016 federal and Municipal Censuses are illustrated in the table below.

2016 Municipal - Federal Census Comparison

Age Cohort	Municipal Census Total	Federal Census Total	Amount Greater Than or Less Than Municipal Census
0-4	5,692	5,630	62
5-9	5,735	5,625	110
10-14	4,956	4,875	81
15-19	6,545	5,320	1,225
20-24	10,256	7,700	2,556
25-29	7,976	7,560	416
30-34	7,198	6,900	298
35-39	5,954	5,940	14
40-44	5,551	5,410	141
45-49	5,066	5,175	(109)
50-54	5,799	5,775	24
55-59	5,907	6,115	(208)
60-64	5,406	5,570	(164)
65-69	4,597	4,695	(98)
70-74	3,347	3,485	(138)
75-79	2,398	2,540	(142)
80-84	2,069	2,070	(1)
85+	2,379	2,375	4

The difference between the Municipal and the Federal Censuses for the other age cohorts is not very significant, changing by a couple of hundred at most in either direction. However the difference between the censuses in the 15 to 19 and 20 to 24 age cohorts is quite significant, amounting to an increase in the municipal census of 1,225 and 2,556 respectively The reason for the 15 to 24 ages being so greatly under-represented in the Federal Census has to do with the manner in which data on post-secondary students is collected. The Federal Census is conducted in May, when most post-secondary students are not attending classes. In contrast, Lethbridge's Municipal Census is conducted during the month of April, when most classes are still in session. The Federal Census also does not include people living in institutional settings, which includes dormitories. In 2016 the Municipal Census found that there were 997 people living on the University of Lethbridge campus and 499 people living on the Lethbridge College campus. The majority of these people are counted in Municipal Census, but not in the Federal Census. Finally, the Federal Census is based upon permanent address, which is not necessarily where students live most of the year to attend post-secondary school. Many students who attend the University of Lethbridge or Lethbridge College come from other municipalities and consider their parent's address to be their permanent address, as opposed to the address they may live at for most of the year while studying. As a result, even if a student is attending classes in the spring/semesters and lives off campus, but consider their parent's out of town address to be their permanent address they are not included in the Federal Census.

2023 POPULATION PROJECTION

Alberta is emerging from a recession that has limited population growth in most urban areas over the past few years. However over this time, while Lethbridge has seen less growth than during the peak years of the mid-2000's, it has still experienced consistent growth that has outpaced all other medium and large cities in the province. Over the course of this Outlook, while other communities will likely resume rapid population growth, Lethbridge is expected to maintain a slightly higher, but steady rate of growth.

Based on an incrementally increasing growth rate that averages at 1.9% per year between 2018-2023, Lethbridge is expected to reach the milestone population of 100,000 by the year 2019. By the year 2023- the extent of this Outlook - the population of Lethbridge is expected to further expand to a population of almost 110,500.

Lethbridge Population Projection

City Sector	2017 Total	2020 Projection	2023 Projection
North	27,453	28,572	29,912
South	31,660	32,779	34,119
West	39,085	42,443	46,463
Total	**98,198**	**103,794**	**110,494**

In 2023, west Lethbridge will continue to capture a majority of city-wide growth with its population increasing by almost 7,500 people to 46,463. North Lethbridge will continue to grow and is expected to achieve a population of 29,912. South Lethbridge will continue its trajectory of slow growth for the next year or two, however population growth in this sector of the City is expected to substantially increase starting in 2019, as the new Discovery neighbourhood in the southeast is developed. By 2023, the population of south Lethbridge is expected to increase by nearly 2,500 to 34,119.

Anticipated % Share of Total City Population Growth 2017-2023

City Sector	%
North	20%
South	20%
West	60%

As the outlook to the year 2023 is in the relative short term, the age composition of each sector of the City is not expected to change very much. Due to a continual supply of students attending the University and College the proportion of 20-24 year olds living in west Lethbridge, and to a smaller extent south Lethbridge, is expected to remain relatively high. Overall, the proportion of those 60 years of age and older was anticipated to increase by a small amount, increasing by 1.5% of the total population to 22.5%. west Lethbridge is not exempt to an aging population either, as it is expected to see a small uptick of 1% in its population that is aged 60 and over to 14.4% of its total population. This is due to the nationwide trend of an aging population, however on a local level this trend is dampened by events that have occurred in the past few years. These developments have increased the relative number of young people in Lethbridge and include provincial migration, immigration and a relatively high birth rate.

When compared to other areas of the City, west Lethbridge will also continue to see a higher proportion of its population being children under 14 years of age and under, with this age group forming 23% of its population. North and south Lethbridge will have 18% and 11% of their populations being 14 years of age and under.

SUMMARY

In contrast to many areas in the rest of Alberta, Lethbridge has a relatively stable population with an annual growth rate that does not often exceed 2% and does not often dip below 1.5%.

West Lethbridge is expected to continue to capture a majority of the city's future growth, due to the availably of new, serviced and developable residential land in this sector of the city. It is expected that north and south Lethbridge will continue to split the remaining city-wide growth. While south Lethbridge is expected to have very low growth in the short term future, beyond 2019 it is expected that it will grab a larger share of the city's overall growth. As can be expected in areas where there is a large amount of new development, west Lethbridge will continue to have a higher proportion of young families with children than other areas of the city.

Contrary to popular myth, Lethbridge has a very young population when compared to other mid and large sized cities and regions. Due to the presence of two post-secondary institutions in the City and the methods employed to obtain this data, Lethbridge has an even greater proportion of residents who are younger than 25 than this comparison indicates. This also means that a number of these people leave the City after University. The out-migration of recent graduates that are in their mid to late twenties that has been experienced in the past is expected to continue into the foreseeable future. This phenomenon should be followed closely, as it illustrates an exodus where students who become highly trained and qualified at Lethbridge's post-secondary institutions are finding opportunities in other municipalities and are choosing to move away after their post-secondary education is complete. These people are likely to work in relatively high-paying, skilled jobs or will open start-up ventures. Much of this loss is due to the relative close proximity of the much large centres of Calgary and Edmonton which have more amenities to offer and a broader array of employment and capital opportunities. Lethbridge is at a disadvantage in this regard and will likely always experience some type of loss of these recent graduates to these larger centres, no matter what measures are put in place. However, this outflow can be decreased as the city continues to grow. It is also possible for Lethbridge to attract some graduates from these larger centres, as this flow of talent does go both ways. The City of Lethbridge should make a concerted effort to try and retain many of these recent graduates and attract graduates from elsewhere. This can include encouraging the establishment of technological industries that tend to provide well-paying careers and constructing amenities that offer an improved lifestyle and are attractive to both these types of industries and the people they employ.

2.4.2 Employment Forecasts

2016 EMPLOYMENT ESTIMATE AND CURRENT CONDITIONS

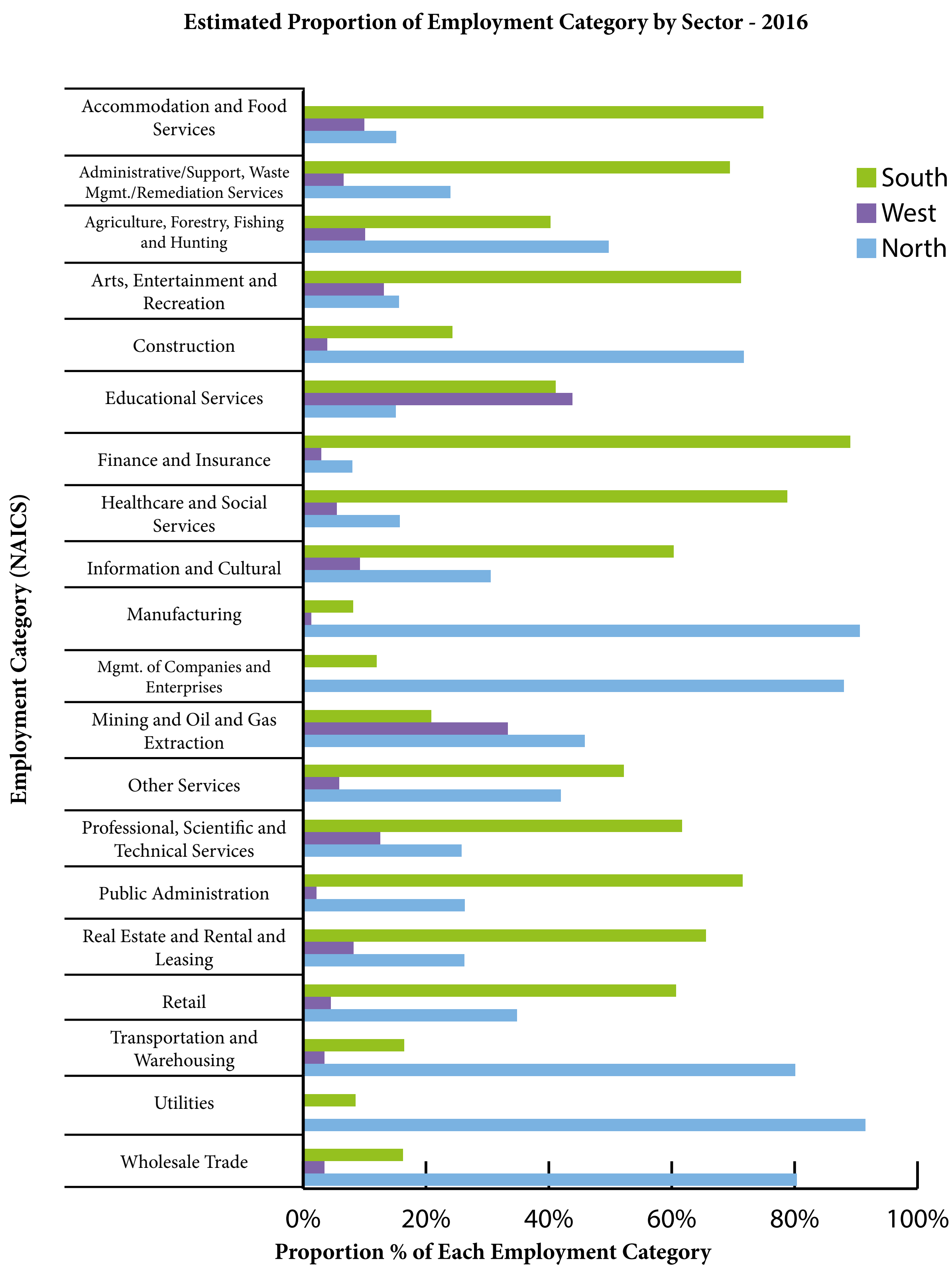
The 2016 Federal Census found that the number of 49,045 people had a place of work within the city of Lethbridge. Using the population derived from the 2016 Federal Census, this is a ratio of employees to population of 0.53.

For the Community Outlook Report the total employment was broken down into 20 different categories of industry, based upon the North American Industry Classification System (NAICS), which is a standard classification system used by Statistics Canada. Statistics Canada supplies employment counts by NAICS category for each census. However, the count for the 2016 Census was not available at the time that this Community Outlook Report was drafted. Therefore, the amount of employment per NAICS category in this report is an estimate based upon the proportion of total employment that each NAICS category had in the previous 2016-2022 Community Outlook. This is still relatively accurate, as the proportion of total employment within each NAICS category does not significantly change from year to year.

Within Lethbridge, the three largest employment categories were Retail Trade (8,908), Healthcare and Social Assistance (7,422), and Accommodation and Food Services (4,596). All told, these three categories composed 42.7% of all employment in Lethbridge. It is estimated that the majority of jobs within these NAICS categories found in south Lethbridge, due to the fact that the downtown and the Mayor Magrath Drive commercial corridor are found in south Lethbridge, as is the City's hospital. Most industrial type jobs such as those found in the Manufacturing, Transportation and Warehousing and Construction employment categories are found in north Lethbridge, as this is where the majority of the city's industrial land is found.

Educational Services also employed a significant number of Lethbridge employees, being the fourth largest employment category with 4,461 employees. This category includes elementary and secondary school teachers as well as much of the staff employed at post-secondary institutions and south and west Lethbridge, where Lethbridge College and the University of Lethbridge are respectively located. It is estimated that south Lethbridge where Lethbridge College is located has 41% of the city's total educational services staff, while west Lethbridge, where the University of Lethbridge is located, has 44%. The North sector of the City, which contains elementary, middle and high schools, but does not contain any major post-secondary institutions only has 15% of the city's total educational services staff.

Mining and Oil and Gas Extraction has a relatively small business footprint in Lethbridge, with 130 employees who are employed in Lethbridge. This translates to 0.26% of all employment within the city and has the smallest employment of all NAICS categories in Lethbridge. The relatively low number of oil, gas and mining employment highlights the fact that there are few energy companies located in Lethbridge and helps to explain why the recent downturn in oil prices has not had a large impact upon the local economy when compared to the rest of the province. It must be noted that this figure does not represent the number of people who live in Lethbridge who work in this field, as industries classified as Mining and Oil and Gas Extraction are typically very mobile. Workers may choose to live in Lethbridge, but are employed in distant places such as Fort McMurray, the Elk Valley in B.C. or even foreign countries. While only a little over 100 jobs in this category exist in the City, just over 654 residents are employed in this category, most of whom work elsewhere.


Estimated Proportion of Employment Category by Sector - 2016
Employment Category (NAICS)
Accommodation and Food Services
Administrative/Support, Waste Mgmt./Remediation Services
Agriculture, Forestry, Fishing and Hunting
Arts, Entertainment and Recreation
Construction
Educational Services
Finance and Insurance
Healthcare and Social Services
Information and Cultural
Manufacturing
Mgmt. of Companies and Enterprises
Mining and Oil and Gas Extraction
Other Services
Professional, Scientific and Technical Services
Public Administration
Real Estate and Rental and Leasing
Retail
Transportation and Warehousing
Utilities
Wholesale Trade
South
West
North
0%
20%
40%
60%
80%
100%
Proportion % of Each Employment Category

2023 EMPLOYMENT PROJECTION

Using the Canadian Occupational Projection System (COPS), published by Employment and Social Development Canada, it is estimated that by 2023 the total number of people employed within Lethbridge is expected to increase by almost 2,800 to a total of 51,804. This projection for Lethbridge is based upon the COPS projection of different employment categories for all of Canada. As Lethbridge has a comparatively similar economy to the nation as a whole, COPS provides a reasonable projection for future employment growth in each NAICS category. While most employment categories are expected to see consistent growth, a small decrease in the agricultural category was expected. The table below contains the 2016 employment that is projected in Lethbridge by NAICS category for 2019 and 2023.

In terms of where this future growth will occur south Lethbridge will still contain the majority of all employment within the city with 27,805 or 54% of all employees, followed by north Lethbridge with 17,666 or 34% of all employees. West Lethbridge will still contain a relatively small amount of the city's overall employment, however between 2016 and 2032 it is expected to have the largest employment gain of any city sector, with an increase of 1,800 employees.

Lethbridge Employment Projection

City Sector	2016 Total	2019	2023
		Projection	
North	17,314	17,508	17,666
South	27,205	27,718	27,805
West	4,526	5,162	6,333
Total	**49,045**	**50,388**	**51,804**

This growth is due to a few factors. In the short term a large commercial site in The Crossings is currently undergoing development and will continue to over the scope of this Community Outlook report. Employment in Education Services will also continue to increase, as a major expansion to the University of Lethbridge is currently underway with a significant new building expected to open on campus in 2019. In addition, one new public school is also currently under construction in west Lethbridge and will be open in the fall of 2018. Long term, beyond the timeline of this Community Outlook Report, future office, general industrial and retail development is planned in an area to the north of existing development in west Lethbridge, called the West Lethbridge Employment Centre.

Healthcare and Social Services were also expected to grow especially in south Lethbridge due to the recently completed expansion of the Chinook Regional Hospital and an aging population. New industrial development will continue to drive employment growth in north Lethbridge over the scope of this Outlook report. This is being driven mainly by new and expanded food processing plants, such as the Cavendish Farms frozen potato processing plant that is currently under construction.

SUMMARY

Unlike much of the province, Lethbridge has a relatively small number of positions in the Mining and Oil and Gas Extraction employment category and has employment that is relatively diverse. As a result local employment prospects are expected to continue to be good within the next few years.

Other than the University campus, west Lethbridge does not contain much employment and will not for the near-term future. This presents a few problems, as west Lethbridge residents must commute to other areas of the city for their employment, shopping and lifestyle needs. This puts additional strain on the city's infrastructure and decreases overall efficiencies. However, in recent years the City has undertaken measures to try and encourage more land uses that generate employment, such as approving the West Lethbridge Area Structure Plan and having a direct role in the development of The Crossings commercial area. In the short term, between now and 2023, it is expected that west Lethbridge's employment growth will outpace that found in north and south Lethbridge.

In perspective of the recent provincial economic instability, Lethbridge's employment diversity has served it well. The recent expansion to the Chinook Regional Hospital and the University of Lethbridge's Destination Project are expected to have a significant impact upon employment within Lethbridge in the future and underscore the importance of the public sector to the local economy. While public sector employment is important within the local context, Lethbridge should continue to diversify its economy so that it becomes increasingly resilient, possibly encouraging investment in the technological industries or knowledge-based industries.

Lethbridge Projected Employment by NAICS

NAICS #	NAICS Name	2016	2019	2023
11	Agriculture, forestry, fishing and hunting	399	396	387
21	Mining and oil and gas extraction	130	134	138
22	Utilities	322	329	333
23	Construction	1,601	1,651	1,706
31-33	Manufacturing	3,888	3,954	3,985
41	Wholesale trade	1,800	1,851	1,899
44-45	Retail trade	8,908	9,119	9,334
48-49	Transportation and warehousing	1,419	1,453	1,493
51	Information and cultural industries	967	980	991
52	Finance and insurance	1,759	1,791	1,824
53	Real estate and rental and leasing	848	864	880
54	Professional, scientific and technical services	2,520	2,643	2,790
55	Management of companies and enterprises	274	279	282
56	Administrative and support, waste management and remediation services	1,866	1,896	1,918
61	Educational services	4,461	4,571	4,689
62	Health care and social assistance	7,422	7,844	8,372
71	Arts, entertainment and recreation	1,036	1,049	1,061
72	Accommodation and food services	4,596	4,681	4,772
81	Other services (except public administration)	2,835	2,891	2,928
91	Public administration	1,993	2,012	2,022

Part 3: Social Outlook

Note: The information in this section will be updated in the next revision cycle of this Outlook report, as current data is incomplete.

3.1 Demographic Change

By 2041, Alberta is expected to be home to about 6 million people, representing an average annual growth rate of about 1.4%. This is quite a bit slower than the 2.0% experienced over the previous 25 year period (1990 to 2015). Alberta's population is projected to surpass the 5 million mark by 2025, and reach the 6 million mark by 2041. Lethbridge remains lower in population growth in 2016 than provincial averages with a growth rate of 2.13% from 2015 and provincial growth rates for 2016 being 2.4%. (Alberta, 2016)

By 2022, the population in Lethbridge is anticipated to be at 108,167. This is based on a 1.9% increase each year between 2016 and 2022.

HIGHLIGHTS:

- The projections in this report do not take into account the 2016 fires in Fort McMurray and surrounding region and the influx of displaced residents to Lethbridge.
- Future population growth is mainly driven by migration, particularly international migration.

Looking forward at a population change requires that three components be considered: natural increase, domestic migration, and international migration.

While domestic migration surpassed natural increase as the driver to population growth during the peak years of economic activity in the Lethbridge region, natural increase contributed more to annual population growth in southwest Alberta over the entirety of the 1986 to 2010 period. Over the past two and a half decades natural increase added an average of 1,300 new residents to the Region each year (2,600 births and 1,300 deaths) while net domestic migration added an average of 309 people and net international added 426. (Urban Futures, 2014)

The current economic downturn will weigh on the province's population growth in the short term, as outflows of some residents put a damper on net migration levels. Over the next five years, average annual growth is expected to be 1.3%, compared to 1.7% over the 2010 to 2015 period. A moderate recovery is expected and, between 2020 and 2022, the average annual gain in population is expected to climb to 1.6%. (Alberta, 2016)

For the period between 2015 and 2022, total net migration is projected to account for just under two-thirds of Alberta's population growth, with natural increase accounting for the remaining 37%. Of the anticipated net migrants, almost three-quarters would come from other parts of the world. In the near term, total net migration is expected to slow due to the economic slowdown, before picking up again as the economy improves. (Alberta, 2016)

International migration is a primary population growth driver with about 46% of the expected growth in the province's population over the projection period will be due to international migration, representing a net gain of about 840,000 people. The addition of new residents from other countries will continue to add to the diversity of the province's population. (Alberta, 2016)

Alberta remains attractive to interprovincial migrants and due to a slowdown in Alberta's economy, net interprovincial migration softened in 2015 and is expected to weaken further, leading to net outflows in the first two years of the projection. A return to net inflows is expected as the economy improves. Net interprovincial migration will account for 17% of the growth, or around 300,000 new residents, between 2015 and 2041. (Alberta, 2016)

Males will continue to outnumber females as Alberta has consistently been home to more males than females due to the large proportion of males migrating to the province. This trend in the sex ratio (ratio of males to females) is expected to continue. Although the sex ratio of migrants is forecast to become more balanced over the projection period, the net migration inflows over the projection will tip the province's overall sex ratio in favour of males. (Alberta, 2016)

SUMMARY:

More people depend on the working age population. The number of working age Albertans (aged 15 to 64 years) is expected to grow under all scenarios, increasing from just over 2.9 million in 2015 to almost 3.9 million by 2041 under the medium scenario. However, as a share of the total population, this age group is anticipated to shrink, falling from 70% in 2015 to around 62% in 2025 (Alberta, 2016). Over the projection period, however, the sex ratio will decrease slightly with the aging of the large baby boom cohort into senior ages, in combination with the higher female life expectancies. The sex ratio in Alberta is expected to remain relatively stable at 103 to 104 males per 100 females, which should translate to a consistent sex ratio in Lethbridge.

3.1.1 Diversity

The population of Lethbridge has grown with the needs of the local economy. The concurrent demands for services also continues to grow at a sustainable rate. This population growth is above the national average and has been stable at an annual growth rate of 2% over the past 10 years and resulting in an estimated population of more than 120,000 by 2031. Integral with this growth is the evidence that Lethbridge is a culturally diverse city.

As of 2011, 12,420 immigrants were living in Lethbridge, an increase of 13% since 2006. The largest sub-groups of immigrants are from the United Kingdom, Netherlands, United States, Mexico and Germany. Commencing in 2009, Bhutanese refugees began immigrating to Lethbridge. This is the largest settlement of Bhutanese in Canada. In 2016, Lethbridge also welcomed an influx of new residents from Syria.

In 2011, 4.3% (4,370) of the population of Lethbridge had an Aboriginal identity. Of those, 55.0% (2,405) reported a First Nations identity only, 42.3% (1,850) reported a Métis identity only, and 0.9% (40) reported an Inuit identity only. An additional 45, or 1.0%, reported other Aboriginal identities and 35, or 0.8%, reported more than one Aboriginal identity (Statistics Canada, 2011).

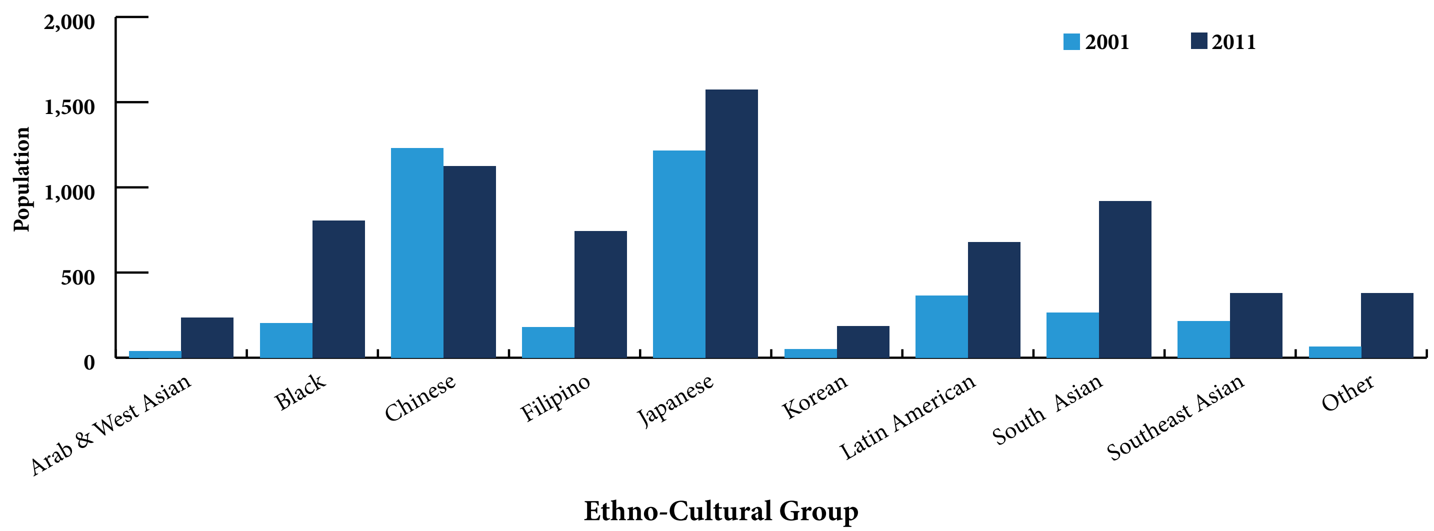
HIGHLIGHTS:

- The immigrant population makes up 12% of the Lethbridge census agglomeration and has increased by 13% between 2006 and 2011.
- From an immigration perspective, citizens with Japanese ancestry accounted for the largest population of visible minorities (StatsCan,2011). Citizens of Chinese and South Asian ancestry account for the next highest population of visible minorities.
- The Lethbridge Aboriginal population as reported by Statistics Canada was 4,370 in 2011, a slight increase in urban population since 2006 (Statistics Canada, 2013d). This included self- identified First Nations, Inuit and Metis community members.
- Anecdotally it is known the population and related demographics have changed over the past 5 years. However, the lack of data limits the accuracy of the current conditions and the ability to forecast the Social Outlook. This includes data from StatsCan and related sources.
- Lethbridge is one of the top 10 Cities in Canada to settle new Canadians (Immigration Canada)

FIRST NATIONS, INUIT AND METIS

Lethbridge is bordered to the west by the Blood Tribe Reserve. The Blood (Kainai) Nation, is the largest reserve in Canada, with an area of over 540 square miles, with a population of 12,800 (2015) members. (Blood Tribe, 2016) Approximately eighty kilometers to the west is the Piikani Nation. The Piikani Nation consists of approximately

Ethno-Cultural Characteristics of Lethbridge



Source: Statistics Canada, Community Profiles 2001 and 2011

The following chart from the National Housing Survey (NHS), Focus on Geography Series (2015) shows the population by Aboriginal identity in Lethbridge. The term 'Aboriginal identity' refers to whether the person reported being an Aboriginal person, that is, First Nations (North American Indian), Métis or Inuk (Inuit) and/or being a Registered or Treaty Indian, (that is, registered under the Indian Act of Canada) and/or being a member of a First Nation or Indian band. Aboriginal peoples of Canada are defined in the Constitution Act, 1982, section 35(2) as including the Indian, Inuit and Métis peoples of Canada.

Lethbridge Population by Aboriginal Identity 2015

	Lethbridge			Alberta		
Population	Number	% of total population	% of Aboriginal identity population	Number	% of total population	% of Aboriginal identity population
Total population in private households	102,785	100%	...	3,567,975	100%	...
Aboriginal identity population	4,370	4.3%	100%	220,700	6.2%	100%
First Nations single identity	2,405	2.3%	55.0%	116,670	3.3%	52.9%
First Nations single identity (Registered or Treaty Indian)	2,035	2.0%	46.6%	96,730	2.7%	43.8%
First Nations single identity (not a Registered or Treaty Indian)	365	0.4%	8.4%	19,940	0.6%	9.0%
Metis single identity	1,850	1.8%	42.3%	96,870	2.7%	43.9%
Inuit single identity	40	0.0%	0.9%	1,985	0.1%	0.9%
Multiple Aboriginal identities	35	0.0%	0.8%	1,875	0.1%	0.8%
Aboriginal identities not included elsewhere	45	0.0%	1.0%	3,300	0.1%	1.5%
Non-Aboriginal identity, population	98,415	95.7%	...	3,347,280	93.8%	...

Source: NHS, Statistics Canada (2015)

3,600 (2015) registered members. Of this population, approximately 40% live off reserve in urban centers that surround the nation. (Piikani Nation, 2016) This trend will continue to grow as members of both First Nations communities migrate to Lethbridge to attain education and employment that is offered through being a part of an urban community.

Canada's Aboriginal population is soaring, having grown 20% between 2006 and 2011, and is also much younger than the country's non-Aboriginal population. According to the NHS, First Nations populations grew by 22%, the Metis population grew by 16.3% and the Inuit population grew by 18.1%. (Statistics Canada, 2012)

The Aboriginal population increased by 232,385 people, according to the NHS, a voluntary questionnaire that replaced the mandatory Long-Form Census. Meanwhile, Canada's non-Aboriginal population grew by 5.2%. (Statistics Canada, 2012)

According to the NHS, more than 1.4 million people identified as Aboriginal in 2011, about 4.3% of the Canadian population. In the 2006 Census, Aboriginals accounted for 3.8% of the overall population. (Statistics Canada, 2012)

According to the survey, children aged 14 and under made up 28% of the total Aboriginal population. In contrast, children aged 14 and under make up 16.5% of the non-Aboriginal population. The report, issued by Statistics Canada, noted that in addition to higher fertility rates, the figures are also due in part to shorter life expectancy among the Aboriginal population. Unlike their non-Aboriginal counterparts, Aboriginal children are more likely to live in a single-parent household or be in foster care. (Statistics Canada, 2012)

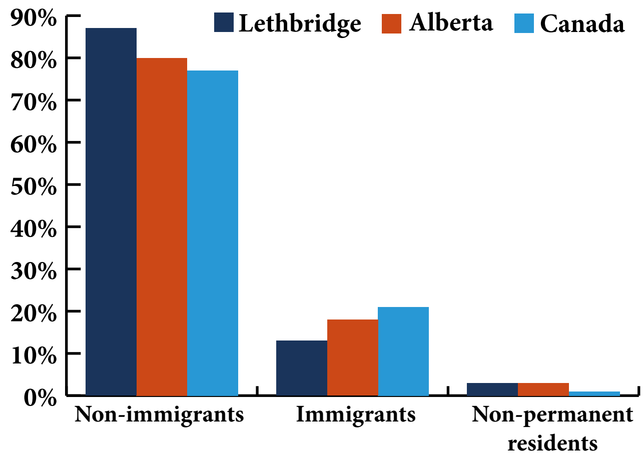
The NHS data reveal that nearly one-half of Aboriginal children aged 14 and under live in a two-parent home, compared to three-quarters of non-Aboriginal children. About 34% of Aboriginal children live in a single-parent home, compared to just over 17 per cent of non-Aboriginal children. Of children aged 14 and under in foster care, nearly half, 48.1%, were Aboriginal. (Statistics Canada, 2012)

IMMIGRANTS AND ETHNIC ORIGINS

According to the recent National Household Survey, immigrants represented 12% of the city's population in 2011—significantly less than the 20% of the Albertan population and the 22% of the Canadian population that were born in other countries. Immigration to Lethbridge in recent years (since 2001) has been lower than what has been seen both provincially and nationally. Of those immigrants living in Lethbridge, almost 61% immigrated to Canada before 2000—a much higher proportion than in Alberta (55%), but still lower than the 65% share seen Canada-wide. (Urban Futures, 2014) Lethbridge is identified as one often preferred settlement cities. (Immigration Canada)

The non-permanent resident population—those people who are living in the Lethbridge temporarily, as they hold work or study visas—accounted for a slightly lesser proportion of the population (1.5%) than the province's population (1.7%), but more than Canada's population (1.1%). (Urban Futures, 2014)

The following figure shows the percentage of Canadian born (non-immigrants), foreign born (immigrants) and non-permanent residents in Lethbridge in 2011:



Source: Figure 1 Percentage of Canadian born (non-immigrants), foreign born (immigrants) and non-permanent residents in Lethbridge (CA) (NHS, Statistics Canada, 2015)

The most common countries of birth of immigrants living in Lethbridge were: United Kingdom (accounting for 15.9% of the immigrant population in Lethbridge) and Netherlands (12.3%). In comparison, the top countries of birth of immigrants living in Alberta were: Philippines (accounting for 10.8% of the immigrant population in Alberta), and India (9.2%). (Statistics Canada, 2015)

In 2011, among Lethbridge's immigrant population, 73.8% spoke English and/or French most often at home. Meanwhile, the three most frequently reported non-official languages spoken most often at home by immigrants in Lethbridge were German, Spanish and Chinese, n.o.s.. This compared to the top three non-official languages for immigrants in Alberta, which were Tagalog (Pilipino, Filipino), Panjabi (Punjabi) and Chinese. (Statistics Canada, 2015)

RELIGION

According to the 2011 NHS, 69.0% of the population in the Lethbridge reported a religious affiliation, while 31.0% said they had no religious affiliation. For Alberta as a whole, 68.4% of the population reported a religious affiliation, while 31.6% had no religious affiliation. (Statistics Canada, 2015)

The most frequently reported religious affiliation in Lethbridge was Roman Catholic, reported by 19,920 (19.4%) of the population. Other frequently reported religions included: United Church (9.0%) and Christian (8.5%). In comparison, the top three most frequently reported religions in Alberta were: Roman Catholic (reported by 23.8% of the population of Alberta), United Church (7.5%) and Christian. (7.2%). (Statistics Canada, 2015)

LESBIAN, GAY, BISEXUAL, TRANSGENDER, TWO-SPIRIT, AND QUEER COMMUNITY

There is a growing identification of the lesbian, gay, bisexual, transgender, two-spirit, and queer (LGBTTQ) community in Lethbridge. Self- identification has been supported through organizations like The OUTreach Southern Alberta Society, Lethbridge Pride Fest events and community activities in part with the City of Lethbridge, Coalition of Municipalities Against Racism and Discrimination (CMARD), YWCA and Boys and Girls Club, Lethbridge Public Library, school districts and other community associations.

The OUTreach Southern Alberta Society responds to the needs of the local and the broader lesbian, gay, bisexual, trans, two-spirit, and queer (LGBTTQ) community of Lethbridge and the surrounding area by supplying resources, education and opportunities to foster self-determination, civic engagement and community participation. (OUTreach Southern Alberta Society, 2016)

As part of their programming, The OUTreach Community Education Program aims to illuminate local LGBTQ issues and foster growth and understanding by providing a comprehensive in-service program for local organizations and businesses. Developed by members of the OUTreach Board of Directors, the Community Education Program has two main components:

1. The first component focuses on LGBTTQ terminology and language, clarifying terms and providing a space for discussion about sexual orientation and gender identity.

2. The second component of the Community Education Program focuses on issues related to the LGBTTQ community in Southern Alberta, and can be tailored to suit the needs of individual organizations.

Topics covered in sessions presented to date include fostering inclusive workplaces, developing welcoming and inclusive family spaces, and establishing Gay Straight/Queer Straight Alliances in local schools and communities.

The OUTreach Southern Alberta Society are working to ensure the washroom facilities in the new leisure building meet the diverse needs of Lethbridge residents. (2016)

On November 9th, 2015, City Council in Lethbridge passed a motion to make recommendations for changes to the gender question on the census. (2016)

SUMMARY:

Given the immigrant status profiles described above, only eight percent of Lethbridge's population considered themselves to be a visible minority in 2011, versus 18% in Alberta and 19% in Canada as a whole. Of those in the Lethbridge who indicated being part of a visible minority group, 23% were Japanese, followed by 16% who self-identified as being of Chinese origin, and 13% who were of South Asian descent. The remaining 48% identified themselves as being a part of a range of other visible minority groups.

Consistent with both the immigration and visible minority profiles, English was by far the most dominant language spoken at home in Lethbridge in 2011 with 94% of the population (Urban Futures, 2014). This was significantly higher than in the province of Alberta as a whole at 86% and in Canada as a whole, where 65% of people primarily spoke English at home (note that the data at the national level are skewed by the fact that 80% of Quebec residents spoke French at home in 2011). As with the visible minority status profile, there was a narrower diversity of languages spoken at home in Lethbridge relative to the province and country: only 5% of Lethbridge residents spoke a language other than English or French at home compared to 13% of Alberta's population and 14% of Canada's.

Lethbridge's averages for religious affiliation among residents is consistent with Alberta's averages.

3.1.2 Families and Children

Before considering future demographic, housing, and labour force changes in Lethbridge, it is instructive to draw on recent socio-demographic and economic data from the 2011 Census and National Household Survey (NHS) as a means of establishing a more comprehensive profile of Lethbridge and illustrating how this profile differs from the provincial and national contexts.

In 2011, the number of census families in Lethbridge was 22,840, which represents a change of 10.9% from 2006. This compares to a growth rate for Canada of 5.5% over the same period. In Lethbridge, 71.3% of census families were married couples in 2011, while 13.3% were common-law-couples and 15.4% were lone-parent families. (Statistics Canada, 2016)

HIGHLIGHTS:

- The majority of people aged 15-plus who live in Lethbridge are part of a married or common law relationship.
- The 2011 Census showed that 57% of residents in the City were either married or in a common law relationship; this compares to 59% provincially and 58% nationally.
- A (marginally) greater proportion of residents in Lethbridge are separated, divorced, or widowed than in the province as a whole: 16% in Lethbridge versus only 13% in all of Alberta.
- The remaining share of people aged 15-plus who are single (never married) is the same in Lethbridge, Alberta, and Canada, at 28%.

Between 2006 and 2011, the number of common-law couples rose 13.9%, more than four times the 3.1% increase for married couples. Lone-parent families increased 8.0% over the same period. Growth was higher for male lone-parent families (+16.2%) than for female lone-parent families (+6.0%). The following table from Statistics Canada, 2011 Census of Population shows the Census family structure in Lethbridge:

Family Structure in Lethbridge 2011

	Census family structure						
Number of children at home	Total - Census family structure	Total couple families	Married couple families	Common-law couple families	Total lone-parent families	Female parent families	Male parent families
Total - Census families by number of children	22,840	19,325	16,285	3,040	3,520	2,840	675
Without children	10,290	10,285	8,345	1,940	0	0	0
With children	12,555	9,035	7,940	1,095	3,515	2,840	680
1 child	5,865	3,670	3,090	575	2,200	1,735	465
2 children	4,540	3,610	3,260	345	935	770	165
3 or more children	2,150	1,760	1,585	175	385	340	50
Total number of children in census families	22,190	16,830	14,985	1,845	5,360	4,400	955
Average number of children per census family	1.0	0.9	0.9	0.6	1.5	1.6	1.4

Source: Statistics Canada, 2011 Census Population, Census Family Structure (2011)

The living arrangements of households in Lethbridge do not differ appreciably from those in either Alberta or Canada as a whole. That said, it is worth noting that Lethbridge has a lesser proportion of households occupied by couples with children (26%) then the province as a whole (32%) or Canada (29%). This appears to be consistent with the share of people aged 15-plus in Lethbridge who are in a married or common law relationship.(Statistics Canada, 2016)

Furthermore, a greater proportion of households in the city consist of couples without children (29%) than in either the province or Canada (both 27%). (Statistics Canada, 2016)

Among couples (married and common-law) in Lethbridge, 43.1% were couples with children aged 24 and under at home. In comparison, as a whole, 46.9% of couples in Canada had children aged 24 and under at home. (Statistics Canada, 2016)

The following chart from Statistics Canada, Focus on Geography Series, Census 2011 (2016) tabulates the presence of children within couple families:

Presence of Children Within Couple Families 2011

Married couples with children *	7,255
Married couples without children *	9,035
Common-law-couples with children *	1,070
Common-law-couples without children *	1,975
* Children aged 24 and under at home	

Source: Lethbridge - Presence of children within couple families, 2011 Census (2016)

YOUTH

Currently in Lethbridge, youth are at risk as they experience challenges and barriers at home, school and in the community. Risks that youth experience have been identified at youth serving agencies and programs including Boys and Girls Club, YWCA Girls Space, Youth HUB, Youth ONE, the community and schools. The Youth Advisory Committee, City of Lethbridge, had anecdotally identified key issues, trends and needs that youth are facing today in Lethbridge. These key issues, trends and need may result in risk related behaviours where the youth may not have the strength of support systems, assets and or resilience to effectively utilize healthy choices and coping strategies. (Youth Advisory Council, City of Lethbridge, 2016)

The following are the identified issues, needs and trends:

- Youth are missing adult mentors to support them
- Youth experience significant challenges in interpersonal relationships
- Lack of youth services including the following:
    - Community Gay-Straight Alliance (GSA) essential for LGBTTQ youth.
    - Youth focused opportunities for spontaneous activity including music, sport, etc.

SUMMARY:

Notably, couples without children represent the greatest proportion of households in Lethbridge. These data are consistent with the greater proportion of the city's population being in the 20 to 24 age group in 2016 than in Alberta or Canada, which is largely due to the availability of post-secondary educational opportunities in Lethbridge.

3.1.3 Seniors

While increasing male and female labour force participation rates are expected in the coming years, the lifecycle pattern of labour force participation declining through these older age groups suggests that these increases will only partially offset the loss of labour supply as the baby boomers age towards retirement. Viewed slightly differently, for every senior who is actively participating in Lethbridge's workforce today there would be 2.2 people aged 65-plus by 2041.

The city-wide labour force is expected to increase from 44,700 people in 2015 to 49,000 by 2022. To the extent that there will always be some level of unemployment due to structural adjustments and frictional adjustments, one can anticipate that employment growth in Lethbridge over the longer-term will be, to a large extent, limited by the rate of growth in its labour force and, by extension, given the relationship between the labour force and population, employment growth may ultimately be limited by the rate of anticipated growth in population.

HIGHLIGHTS:

- The typical resident age provincially was 28 years old (70,274 people of this age).
- Typical person in Canada in 2015 was 40 years old, illustrating the impact that younger (and more) migration to Alberta and to Lethbridge has had on the composition of their respective resident populations.
- The baby boom generation in Lethbridge will be senior citizens in 2025.

Setting aside the disproportionate number of 20 to 24 year olds, Lethbridge's population does show the post war "baby boom" bulge in its age profile, which is common to most regions in Canada. The baby boom generation—people born between 1946 and 1965 (aged 50 to 69 in 2015)—accounted for 22% of the city's population in 2015. Another important distinction in the city's age profile is the scale of its seniors population: those aged 65 and older accounted for more than 15% of the city's population in 2015.

SUMMARY:

With so many changes, both internal and external, influencing the city's demography, it is clear that the future population of the city will be shaped in part by its current residents—namely the one-quarter of whom will age into retirement in the coming two decades—and in part by migration, which will work to fill in the younger age groups.

3.1.4 Persons Living with a Disability

An estimated 3.8 million adult Canadians reported being limited in their daily activities due to a disability in 2012. This represents 13.7% of the adult population. Over 11% of Canadian adults experienced one of the three most prevalent disability types: pain, mobility or flexibility. Of those who reported at least one of these disability types in 2012, more than 40% experienced all three at the same time. (Statistics Canada, 2012)

The next most commonly reported disabilities were mental/psychological, 3.9%; dexterity, 3.5%; hearing, 3.2%; seeing, 2.7%; followed by memory and learning disabilities, 2.3% each. Less than 1% of Canadian adults reported a developmental disability. (Statistics Canada, 2012)

HIGHLIGHTS:

- Senior citizens in 2025 will require assistance due to the prevalence of disabilities at they increase steadily with age.
- Less than 1% of Canadians report a developmental disability.
- Women are more likely to have a disability than men.

The prevalence of disability increases steadily with age: 2.3 million working-age Canadians (15 to 64), or 10.1%, reported having a disability in 2012, compared to 33.2% of Canadian seniors—those aged 65 or older. Within the working-age population, those reporting a disability was 4.4% for people aged 15 to 24, 6.5% for those 25 to 44 and 16.1% for those 45 to 64. This proportion reaches 26.3% for those aged 65 to 74 and 42.5% among those 75 and older. (Statistics Canada, 2015)

The most prevalent types of disability also vary by age. In the youngest age group, 15 to 24, the most commonly reported types of disability were mental/psychological disabilities, 2.2%; learning disabilities, 2.0%; and pain, 1.9%. Among those aged 45 to 64, the most common were pain, 12.7%; flexibility, 9.8%; and mobility, 8.6%. While these three types of disabilities are also the most commonly reported among seniors, the prevalence was higher: 22.1% for pain, 20.5% for mobility and 19.3% for flexibility. The prevalence of hearing disabilities was also high among seniors, 10.4%. (Statistics Canada, 2015)

Specialized equipment and aids often enable persons with disabilities to carry out their daily activities, for example by facilitating movement (e.g., wheelchairs, hand and arm supports) or helping them hear, see or learn (e.g., hearing aids, magnifiers or specialized computers). Having the appropriate aids can enable an individual to participate more fully in society. In 2012, 81.3% of persons with disabilities reported using some kind of aid or assistive device. (Statistics Canada, 2015)

3.2 Health

The Social Determinants of Health influence the health of populations and community. The key determinants of health include:

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment and Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture

Health status improves at each step up the income and social hierarchy. High income determines living conditions such as safe housing and ability to buy sufficient good food.

Alberta Health, Primary Health Care (2015) has created community profiles for Lethbridge by sectors and they include:

- Lethbridge - South
- Lethbridge - West
- Lethbridge - North

Each of these sectors of Lethbridge has its own unique profile with a large number of demographic, socioeconomic and health related indicators intended to provide a better understanding of the community's current and future health needs.

LETHBRIDGE - SOUTH

In 2014, the largest age group was 35-64 year olds, accounting for 37.6% of the overall population. Children 17 and under comprised 16.7% of Lethbridge - south's overall population, compared to 22.2% for Alberta. In addition, residents 65 and older accounted for 22.2% of Lethbridge - south's overall population, 10.9 percentage points higher than the corresponding provincial proportion.

Compared to Alberta, Lethbridge - south had a similar proportion of First Nations people (3.0% vs. 3.4% AB). The proportion of female lone-parent families was similar to the provincial proportion (11.4% vs. 11.1% AB). In addition, the proportion of male lone-parent families in Lethbridge - south was lower than the provincial proportion (2.9% vs. 3.4% AB).

Furthermore, a higher percentage of families had an after-tax low-income level compared to the province (11.9% vs. 10.7% AB). Compared to Alberta, the percentage of people who spent 30% or more of their income on housing related expenses was 0.5 percentage points lower in Lethbridge - south. In addition, a lower proportion of people in Lethbridge - south lived in dwellings they owned (66.6% vs. 73.6% AB).

Lethbridge - south had a lower proportion of non-English and non-French speaking people compared to Alberta (0.4% vs. 1.4% AB). Also, a lower proportion of immigrants arrived in the last five years in Lethbridge - south compared to the province (1.6% vs. 4.0% AB). Furthermore, Lethbridge - south reported a similar proportion of people with apprenticeships, trade certificates or diplomas (9.2% vs. 12.2% AB).

On average, the condition with the highest chronic disease prevalence rate reported for Lethbridge - south during 2005 to 2012 was hypertension. The largest rate of change during this time period was reported for hypertension (on average 0.45 people per 100 population average increase per year). In 2012, Lethbridge - south ranked number 94 in hypertension, number 61 in diabetes, number 112 in ischemic heart disease and number 101 in COPD among prevalence rates reported for the 132 local geographical areas.

Lethbridge - south's combined semi-urgent and non-urgent emergency visit rate per 1,000 population was comparable to the provincial rate in 2013/2014 (263.9 vs. 285.5 AB). Semi-urgent emergency visits occurred at a 0.9 times lower rate in Lethbridge - south compared to Alberta (193.3 vs. 204.8 AB).

The peak total number of emergency visits for Lethbridge - south in 2013/2014 was reported for Sundays between 9 - 10 AM (118 emergency visits). The volume of emergency visits was low during the early morning hours and declined gradually throughout the day after peaking somewhere between late morning and early afternoon.

LETHBRIDGE - WEST

Lethbridge - west's population increased by 116.6% between 1994 and 2014 (compared to a 56% increase for Alberta). The largest age group in the region in 2014, was 35-64 year olds who accounted for 36.5% of the population compared to 40.4% for Alberta. Children 17 and under made up 24.7% of the population compared to 22.2% for Alberta, while individuals 65 and older accounted for 9.0% of the population and 11.3% in Alberta.

Lethbridge - west had a similar proportion of First Nations and Inuit people compared to Alberta (3.4% vs. 3.4% AB). The percentage of female lone-parent families was similar to the provincial percentage (11.2% vs. 11.1% AB). And there was a similar proportion of families with an after-tax low-income level were reported in the Local Geographic Area (LGA) compared to Alberta (10.7% vs. 10.7% AB).

In 2012, the disease with the highest prevalence rate (per 100 population) in Lethbridge - West was hypertension. The rate associated with this disease was similar to the provincial rate (12.1 vs. 12.3 AB).

Mental and behavioural disorders are particularly important from a population health perspective. In 2013, Lethbridge - west's emergency department (ED) visit rate for mental and behavioural disorders was lower than the provincial ED visit rate per 100,000 population (274.3 vs. 633.3 AB). It is important to note that during 2004 to 2013, mental and behavioural disorders accounted for 5.9% of all deaths in Lethbridge- West.

Lethbridge - west's combined semi-urgent and non-urgent emergency visit rate per 1,000 population was comparable to the provincial rate in 2013/2014 (198.3 vs. 285.5 AB). Semi-urgent emergency visits occurred at a 0.7 times lower rate in Lethbridge - west compared to Alberta (146.1 vs. 204.8 AB).

Similar to Lethbridge - south, the peak total number of emergency visits for Lethbridge - West in 2013/2014 was reported for Sundays between 9 - 10 AM (102 emergency visits). The volume of emergency visits was low during the early morning hours and declined gradually throughout the day after peaking somewhere between late morning and early afternoon.

LETHBRIDGE - NORTH

Lethbridge - north's population increased by 25.6% between 1994 and 2014 (compared to a 56% increase for Alberta). The largest age group in 2014, was 35-64 year olds who accounted for 39.8% of the population compared to 40.4% for Alberta. Children 17 and under made up 20.4% of the population compared to 22.2% for Alberta, while individuals 65 and older accounted for 14.1% of the population in the LGA and 11.3% in Alberta.

Lethbridge - north had a similar proportion of First Nations and Inuit people compared to Alberta (4.9% vs. 3.4% AB). (Table 3.1) The percentage of female lone-parent families was higher than the provincial percentage (14.9% vs. 11.1% AB). A higher proportion of families with an after-tax low-income level were reported in the LGA compared to Alberta (13.6% vs. 10.7% AB).

In 2012, the disease with the highest prevalence rate (per 100 population) in Lethbridge - north was hypertension. The rate associated with this disease was 1.1 times higher than the provincial rate (13.3 vs. 12.3 AB).

In 2013, Lethbridge - north's emergency department (ED) visit rate for mental and behavioural disorders was higher than the provincial ED visit rate per 100,000 population (1,075.8 vs. 633.3 AB). The inpatient discharge rate associated with mental and behavioural disorders was comparable to Alberta's discharge rate per 100,000 population (131.7 vs. 120.0 AB). During 2004 to 2013 mental and behavioural disorders accounted for 4.6% of all deaths in the sector.

Lethbridge - north's combined semi-urgent and non-urgent emergency visit rate per 1,000 population was comparable to the provincial rate in 2013/2014 (271.5 vs. 285.5 AB). Semi-urgent emergency visits occurred at a similar rate in Lethbridge - north compared to Alberta (201.1 vs. 204.8 AB).

Unique to Lethbridge- north, the peak total number of emergency visits for Lethbridge - north in 2013/2014 was reported for Sundays between 2 - 3 PM (94 emergency visits). The volume of emergency visits was low during the early morning hours and declined gradually throughout the day after peaking somewhere between late morning and early afternoon.

3.2.1 Housing Needs

Another dimension that can be considered as part of a socio-demographic and economic profile of Lethbridge is the number of households that are in core housing need. This can been done using data from the Canada Mortgage and Housing Corporation's Housing in Canada Online (HiCO) database—a measure jointly developed by CMHC and Statistics Canada—which calculates the various dimensions of housing need for regions across Canada.

A household is said to be in core housing need if the housing unit that it occupies falls below at least one of the established adequacy, affordability, or suitability standards. In this context:

1. Adequate housing refers to dwellings that are reported by their residents as not requiring any major repairs;
2. Affordable housing refers to dwellings that cost less on a monthly (or annual) basis than 30% of the household's total before-tax income; and
3. Suitable housing refers to dwellings that have enough bedrooms for the size and make-up of its residents, according to National Occupancy Standard requirements.

A household is therefore not considered to be in core housing need if its housing meets all of the adequacy, suitability and affordability standards, or, if its current housing does not meet one or more of these standards, it has sufficient income to obtain alternative local housing that is acceptable (i.e. that meets the three standards) in another location within the city.

Finally, it is important to note that regardless of their circumstances, non-family households led by maintainers between the ages of 15 and 29 attending school full-time are considered to be in a transitional stage of life and therefore not considered as part of the core housing need assessment. This is particularly relevant in Lethbridge's context, given the prominence of the University and the College within the city and broader region. (Urban Futures, 2014)

HIGHLIGHTS:

- Lone parents comprised a greater proportion of renter households in core need (25%) than they did in the broader rental stock (14%).
- Non-family households were also overrepresented in the core need segment for renters, accounting for 52 % of all households in core need (versus 50% of all renter households in the city).
- Couples living in rented accommodation (with or without children) were under-represented in the core need segment (accounting for 22% of those renter households in core need, versus 35% in the whole of the rental stock).
- Lone parents in rental households therefore had the greatest propensity to be in core need among the four household types considered here, at 40 % in 2006. This was followed by multi-family households (38% of whom were in core need), non-family households (24%), and finally couples (14%).
- The incidence of core-need among households headed by a resident aged 30 years or older is higher than among households headed by people in younger age groups.

Of the 1.18 million households in Alberta in 2006, 10% were in core housing need (119,045)—lower than the 13% of households in core housing need Canada-wide. The proportion of households in Alberta who are in core need has declined over time, falling from 12.8% in 1991 to 11.3% in 1996, 10.5% in 2001, and further to 10.1% by 2006. (Alberta 2016)

Considered on a tenure basis, although renter households represented one-quarter of households in the province (26%), they accounted for 59% of all households that were in core need in 2006. Owner-occupied households, on the other hand, accounted for 41% of those in core need (versus representing 74% of all households province-wide). Put slightly differently, renter households were over-represented in the core need segment. (Urban Futures, 2014)

With respect to family composition, of the 70,535 households who were in core need in the province in 2006 (including both renters and owner-occupiers), just over half (51%) were non-family households, 27% were couples (with and without children), and 21% were lone parent-led households. Multiple-family households made up the remaining 1%. (Urban Futures, 2014)

In Lethbridge, according to the HiCO data3, of the 35,640 households in the Lethbridge in 2006, 9.6% (3,410 households) were in core housing need. This was significantly below the 15.9% (3,580 households)

reported in 1991. Digging into the data a little deeper, renter households were, as at the provincial level, over-represented among those in core need: while accounting for only 25% of the city's total households in 2006, the 2,075 renter households in core need accounted for 61% of all households in core need. (Urban Futures, 2014)

In contrast, owner-occupied households made up 39% of those in core need (1,335 households), but represented 75% of the city's total households (26,565). Viewing the same data in a different way reveals that only 5% of owner-occupied households in Lethbridge were in core need in 2006 compared to 23% of renter households. (Urban Futures, 2014)

Despite representing a smaller share of households in core need, it is worth commenting on a couple of different characteristics relating to the owner-occupied segment before exploring the data for renter households. More specifically, owner-occupied dwellings consisting of lone parents and non-family households were over-represented in the core need segment in Lethbridge in 2006, accounting for 21% and 47% of all owner households in core need (respectively), versus only 9% and 31% of all owner households (respectively). (Urban Futures, 2014)

With respect to the age of the primary household maintainer (the person primarily responsible for the household's finances), owner-occupied households maintained by someone aged 15 to 29 accounted for 12% of owned households in core need, the 30 to 44 group accounted for 24% the 45 to 64 group for 3 %, and the 65-plus group 27%. No significant difference was seen in the age composition of owner-occupied households in core need versus all owner-occupied households. (Urban Futures, 2014)

3.2.2 Poverty Profile

Poverty is a growing problem in Canada, as well as the rest of the world, due to weakening economies and government decisions about resource allocation and redistribution. Income insecurity and economic deprivation are also included, side by side with family composition, immigration status, race/ethnicity, gender age, disability, and the availability of social supports. Income is a key determinant of health.

New immigrant, visible minority, and non-English/French speaking children and their families are more vulnerable to circumstances of poverty and financial insecurity. Children of female-headed single parent households, families with disabilities, and families with low levels of education are also at an increased risk. (Homeless Hub, 2016)

HIGHLIGHTS:

- In 2011, 24.5% of the total Lethbridge Aboriginal population lived under the Low-Income Measure (Statistics Canada, 2013d). This is:
- A significant reduction in low-income rate since 2006
- The 5th highest rate of low-income among urban Aboriginal people in any Alberta city; a decrease from the 1st highest in 2006
- In general terms, children (under 18 years) were experiencing low-income to a greater degree than that of adults (18+ years). However, the Aboriginal population children and adults are relatively the same in rating with 30 per cent of Aboriginal children in Alberta living in poverty. (Alberta, 2016)
- Young (under 18 years) females experience low-income (23.9%) far greater than males (17.8%), while it is adult males that experience low-income greater than females (Statistics Canada, 2013d).
- Almost 1 in 3 Aboriginal individuals in Alberta does not have a high school diploma (29.7 per cent), and Aboriginal peoples without a high school diploma have a low-income rate of 24.3 per cent.
- The low-income rate of university-educated Aboriginal people is slightly lower than the provincial average, at 8.7 per cent.

Aboriginal and visible minority individuals have a higher low-income rate than the general population of Alberta. While 9.1 per cent of Albertans live in poverty, visible minorities and Aboriginal peoples are overrepresented at 15.8 per cent and 19.2 per cent respectively.

- University-educated visible minority Albertans have a higher low-income rate (13.7 per cent) compared to visible minorities with non-university certificates or diplomas (11.9 per cent).
- 21.2 per cent of visible minority children aged 5-18 live in poverty.
- While recent immigrants, on average, have higher levels of educational attainment than the general population of Alberta, their low-income rates are considerably higher.

Public Interest Alberta (2016) reports that in Lethbridge, more than one in five employed people in the region are low-wage workers.

- 12,900 of 58,900 employed people in the region earn $15 per hour or less (21.9%).
- 14,900 earn $16 per hour or less (25.3%).
- 5,400 earn the new minimum wage ($12.20 per hour) or less (9.2%).

They also indicated that the majority of low-wage workers in the region are women.

- 6,900 low-wage workers are women (53.5%).
- 3,100 workers earning the new minimum wage ($12.20 per hour) or less are women (57.4%).

Public Interest Alberta concludes that more than 4 in 5 low-wage workers in the region are 20 years of age or older.

- 10,600 (82.2%) are 20 years of age or older.
- 4,300 (33.3%) are between 20 and 24 years old.
- 3,700 (28.7%) are between 25 and 44 years old.
- 2,600 (20.2%) are 45 years of age or older.

SUMMARY:

Children in Alberta's urban centers are more likely to live in poverty, despite increased social resources and employment opportunities in these centers. In Alberta, the low income rate increases as the size of the community increases. In rural communities, the low income rate is 4.9 per cent, compared to the provincial average of 9.1 per cent.

Youth (under 18 years) experience low-income to a greater degree than that of adults (18+ years) with women at a higher risk of poverty than men. In Lethbridge in 2011 there were 26,380 children under the age of 19. Of these, 48.8% were female. (Statistics Canada, 2016)

Non-rural communities with a population under 30,000 (i.e. Airdrie, Lloydminster, Okotoks) report that 5.6 per cent of their population lives in poverty, while communities with a population between 30,000 – 100,000 (i.e. Red Deer, Lethbridge, Medicine Hat) report a rate of 7.9 per cent.

For urban centers with a population greater than 500,000 (Calgary and Edmonton) the low-income rate is 11.4 per cent. With the percentage of low-wage workers (employed at $15/hour or less) in Calgary and Edmonton roughly reflecting the provincial average, at approximately 24 per cent.

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3.3 Education

Educational services are a major strength in Lethbridge. The city is served primarily by two school boards – Lethbridge School Division No. 51, a public school district and Holy Spirit Catholic Schools Division #4, a Catholic school district. Palliser Regional Schools is responsible for the surrounding area. Post-secondary education also plays a pivotal role in the city. Both the University of Lethbridge and Lethbridge College play an outsized role in the local economy. Not only are these institutions among the ten largest employers in the city, they are the primary source of future labour for the area and represent a distinguishing feature for a city of our size. The confluence of these factors helps explain why the continued success of these establishments is critical to both the current and future well-being of Lethbridge.

HIGHLIGHTS:

- The fall 2015 headcount at the University of Lethbridge was up 3% on a year-over-year basis
- The total number of unique students registered at Lethbridge College was up 2% on an annual basis
- The number of undergraduate full-time students at the University of Lethbridge was up 5% compared with figures from the previous year
- Full-time graduate students were up by 13% compared to the five-year average from 2010-2014
- The number of graduates at Lethbridge College increased by 45% on a year-over-year basis and exceeded the five-year average between 2009/10-2013/14 by 59%
- Almost 15,000 students are served by Lethbridge School Division No. 51 and Holy Spirit Schools Division #4, while Palliser Regional Schools serves another 8,000.

PRIMARY AND SECONDARY EDUCATION

Lethbridge is committed to quality education from pre-school and kindergarten through to the college and university. Within the Lethbridge public and Catholic school systems, there are 18 elementary schools, five junior high schools, three high schools and one integrated occupational school. Another Christian school operates from pre-kindergarten through grade 12 and a Francophone public community school serves Lethbridge and area from pre-school to grade 12.

LETHBRIDGE SCHOOL DISTRICT NO. 51

This school district educates over 10,000 students within Lethbridge and employs over 1,000 staff members. They have a broad range of educational programs in eighteen schools and a number of outreach programs.

All schools provide instruction in the core subjects (language arts, mathematics, social studies and science), physical education and fine arts. French language instruction is provided in grades four through twelve and a French Immersion program is offered for students from kindergarten through grade 12. At the secondary level, students can experience a wide range of options or complementary courses designed to meet their unique needs and interests, including those related to career and technology studies. International Baccalaureate, Advanced Placement, and Knowledge and Employability courses are also offered to high school students.

PALLISER REGIONAL SCHOOLS

Palliser's original geographic area stretches from just south of Lethbridge and to the north of the Bow River on the outskirts of Calgary. With the addition of faith-based alternative programs, Palliser now serves students within the City of Calgary as well. It severs about 8,100 students and has over 1,400 employees. The entire network of schools comprises 17 Hutterian colony schools, 15 community schools, 10 faith-based alternative schools, four outreach programs, two alternative programs for Low German-speaking Mennonite families, a home schooling program and an online and international program.

HOLY SPIRIT ROMAN CATHOLIC SEPARATE REGIONAL DIVISION #4

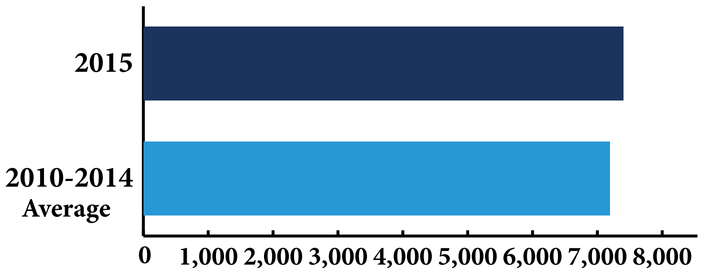
The Holy Spirit Catholic School Division operates a total of 14 schools (ECS to Grade 12) in five communities Coaldale, Lethbridge, Picture Butte, Pincher Creek and Taber. Total student enrolment is 4,835 (as of September 30, 2014). Holy Spirit employs approximately 745 staff members.

In addition to offering a solid program in the core subject areas, additional programs include French Immersion, Native Education and Fine Arts. Special Education support and services are provided. The Holy Spirit Catholic School Division is strongly committed to the ideals of Catholic education and provides opportunities for students to achieve academic excellence and to grow personally, socially and physically in a Christ-oriented environment.

UNIVERSITY OF LETHBRIDGE

Total student enrolment at the University of Lethbridge for the Fall 2015 semester was 8,296, including full-time student enrolment of 7,397. 6,958 full-time students were registered in undergraduate programs while 439 were enrolled in graduate studies.

University of Lethbridge Full-Time Student Enrolment

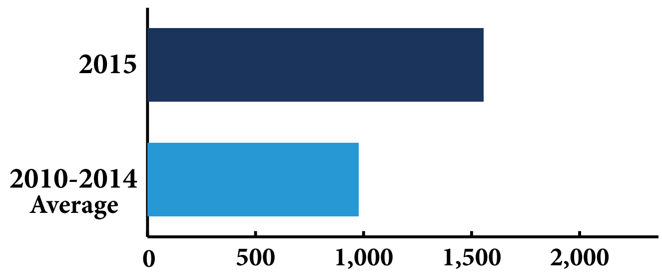


There were 1,879 graduates from the University of Lethbridge over the course of the 2014/15 academic year. This total represents a decline of 3% from the year prior (1,940 in 2013/14) and a 4% decline compared with the five-year average derived from the 2009/10-2013/14 period (1,953).

LETHBRIDGE COLLEGE

There were a total of 6,524 unique students registered at Lethbridge College during the 2014/15 academic year. The number of Full-Load Equivalents (FLEs) attending Lethbridge College during the 2014/15 academic year was 3,926.

Lethbridge College Graduates



There were a total of 1,556 graduates from Lethbridge College during the 2014/15 academic year, which represents an increase of 45% on an annual basis (1,070 in 2013/14) and 59% compared with the five-year average derived from 2009/10-2013/14 (978).

SUMMARY

The two school boards that serve Lethbridge are responsible for the education of almost 15,000 students while the Palliser Regional Board provides services for another 8,000 students. Lethbridge School District No. 51 and Holy Spirit Catholic Division #4 employ a combined total of 1,800 staff members, with Palliser accounting for another 1,400 jobs. The number of students registered at both the University of Lethbridge and Lethbridge College increased in the past year, with total enrolment at the university up 3% and registration at the college up 2% based on the most recent annual comparatives for each institution. Both of these establishments also witnessed increased totals in the number of full-time students, with the University of Lethbridge recording a spike of 4% and Lethbridge College a 2% jump on a year-over-year basis. One area where the two institutions diverged was in the number of graduates. Total graduates at the University of Lethbridge fell by 3% on an annual basis, while Lethbridge College saw its total jump by 45% over the same time period.

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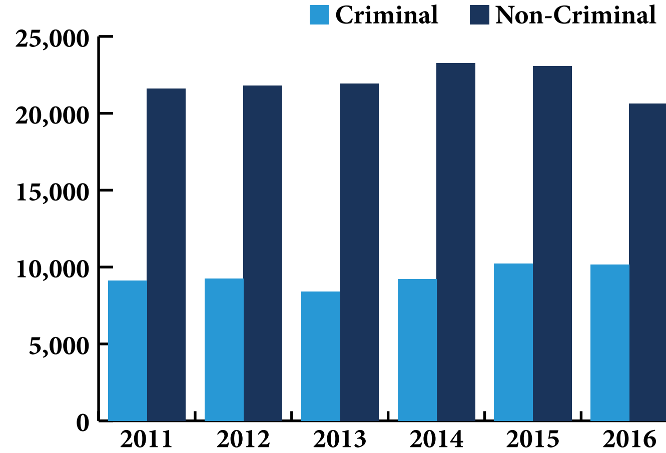
3.4 Public Safety

CRIME IN LETHBRIDGE

Similar to other communities across Canada, Lethbridge experiences short-term upward trends in some crime categories. The long-term trend provincially and nationally shows that crime has been on a gradual decline, however regional factors and temporary influences have caused some local deviation. The majority of serious violent crime occurs between individuals known to one another and within competing groups often related to trafficking in illicit commodities, primarily drugs. Domestic violence continues to be a community and provincial concern as it transcends all socio-economic classes and ignores race and ethnicity. Domestic violence has real impacts on family, children and society. Property crime, including break and enters, thefts from vehicles and shoplifting, are typically motivated by substance dependence. The increase the city is experiencing in these incidents is largely associated to the abuse of methamphetamine and opioids. While it is often assumed that changes in the economy increase crime trends, in reality it is a minor factor. Individuals predisposed to committing crime do so in all economic environments. Furthermore there are many resources available to the recently unemployed such that immediately resorting to crime as a means to support a way of life is a rarity. Social issues, such as mental illness, drug addiction, substance abuse, homelessness, or a combination, are typically what drive crime and as a result a holistic approach involving law enforcement and community stakeholders is necessary to address the root causes and break the cycle.

The Police Service conducts annual surveys to gauge the community's perceived sense of safety and invariably most citizens report they feel safe in Lethbridge and believe the Police Service is doing a good job. Individuals who live a high-risk life style are at greater risk of becoming a victim of crime or trauma. As the city's population grows, the complexity and frequency of sophisticated crime will follow. As the geographic footprint expands the challenges of extending police services to new streets and communities increases. Notwithstanding Lethbridge remains a safe place to live, work, play and raise a family.

Calls for Service by Call Type



"Criminal" Calls for Service include the Event Types of Abduction, Assault/Sexual Assault, Bomb Found/Suspicious Package, Bomb Threat, Burglary (B&E), Damage/Vandalism/Mischief, Domestic Disturbance/Violence, Driving Under the Influence, Drugs, Harassment/Stalking/Threat, Indecency/Lewdness, Robbery/Carjacking, Theft and Weapons/Firearms.

"Non-criminal" Calls for Service include calls that were categorized as Abuse/Abandonment/Neglect, Administrative, Alarms, Animal, Assist Other Agencies, Deceased Person, Disturbance/Nuisance, Explosion, Fraud/Deception, Mental Disorder, Misc, Missing/Runaway/Found Person, Officer Needs Assistance, Public Service, Suicidal Person, Supplemental, Suspicious/Wanted, Traffic Accident, Traffic Violation/Complaint/Hazard, Trespassing/Unwanted and Unknown 3rd Party.

3.5 Community Resilience (Fire/Flood)

Community resilience is a measure of the sustained ability of a community to utilize available resources to respond to, withstand, and recover from adverse situations.[1]

There are a number of situations that a community must prepare for in order to ensure that people and property are protected. Natural and anthropomorphic caused events occur with varying degrees of frequency in different communities these include fire, flooding, wind, tornados, structural failures (bridges), rail accidents, drought and more. There is some indication that the frequency of some natural events is increasing due in part to changes in climate.

The City of Lethbridge has not been subjected to frequent emergency events. However, it has seen some significant flooding, fire and hail storms that have caused property damage. The City is almost entirely located outside the flood fringe of the Oldman River having made the decision to move all settlements out of the River Valley in 1950. As a result property damage caused by floods has been limited to parklands.

EVENTS

Flooding (Spring, 1995) - Flooding occurred in southern Alberta on the heels of the forest fires in the north. Temperatures in the upper 20's the previous week, as well as spring run-off and rain, led to flooding which started in the Crowsnest Pass area and moved through to Pincher Creek, Fort MacLeod, Medicine Hat and then into Saskatchewan. In total, 27 municipalities were impacted. Communities in the west had no advance warning; however, Medicine Hat had 2-3 days warning which gave them lead time to plan and prepare for the event. The City was able to identify evacuation areas and provide information to citizens. This was Canada's worst natural disaster at that time.

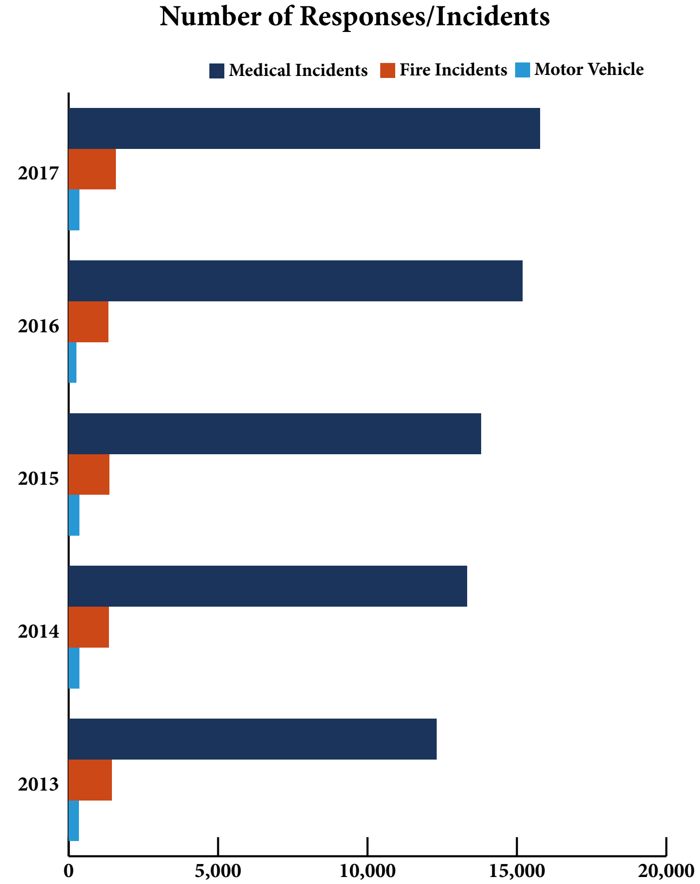
Flooding (June 9, 2002) - Heavy rain and snowfall caused flooding in southern Alberta. The following municipalities declared a State of Local Emergency: Towns of Pincher Creek, Coaldale and Magrath; Counties of Lethbridge,

Warner and Cardston; Villages of Sterling, Warner and Foremost. The Blood Tribe at Standoff and the Peigan Nation at Brocket passed band council resolutions and evacuated residents. Several boil water orders were issued.

Flooding (July 1-2, 2008) - A State of Local Emergency was declared in the City of Lethbridge on July 1, 2008 due to flooding caused by heavy rain. The Alberta Emergency Management Agency had an officer on scene to relay information back to the Agency Response Readiness Centre. The City reported some breaches at the Wastewater Treatment Plant. Most waste stayed on site, however there was some discharge into the Oldman River. This was reported to Alberta Environment.

Wildfire (September 10, 2012) - Grass fires near west Lethbridge and the Town of Coalhurst forced about 2,500 people from their homes; people were able to return to their homes the next day. About 12,500 acres of land burned from this event which started on the Blood Reserve and which was fueled by winds that were gusting to 110km/hr.[2]

LETHBRIDGE FIRE AND EMERGENCY SERVICES



Flooding (June, 2013) - Significant rainfall in the Eastern Slopes of the Rocky Mountains resulted in streams and rivers overflowing in large parts of Southern Alberta. Up until the Forest Fires that affected Fort McMurray in 2016, this was the countries costliest natural disaster. The City of Lethbridge saw extensive flooding in the Oldman River Valley.

Hail Storm (July, 2013) - Significant property damage was caused by thunderstorms that flooded streets and backed up sewers. As well, gold ball sized hails created significant damage to homes, vehicles and crops.

Water Turbidity/Shortage Event (March 14, 2014) - An unprecedented quick snow melt caused water to run directly over ice and frozen ground to rivers and streams carrying with it dirt, silt and organic matter – thereby causing filters at the City's Water Treatment Plant to become clogged, thus reducing the Plant's capacity to produce potable water. The City declared a State of Local Emergency – water conservation measures implemented – in addition to citizens, major industrial water users had to shut down. Alberta Health Services issued a boil water order.

Flooding (June 17, 2014) - Alberta Environment and Sustainable Resources issued a flood warning for the Oldman River – precipitation expected in the South West of the province to be 120 – 150 mm. River Forecasting Centre anticipated flow to be 4,500 m3/sec (same as 1995) – actual flow was 2,250 m3/sec. Lethbridge County declared a State of Local Emergency. Areas in the city that were evacuated included: Bridgeview Campground, Paradise Canyon, Tollestrup Construction Inc., Fort Whoop Up and the Helen Schuler Nature Centre. The City of Lethbridge did not declare a State of Local Emergency.

Coulee Wildfire (October 17, 2017) - A wildfire in the coulees above the Country Club Golf Course closed several roads in the area. Fueled by ferocious winds the fire spread to 35 acres threatening the Martha Retreat Centre, Radiology Associates, the Mountain View Cemetery and potentially homes across from Scenic Drive. A voluntary evacuation was in place for residents of Scenic Heights and English Oaks. Given the extreme conditions, the efforts of fire crews in stopping this fire before it extended into any homes or businesses was remarkable. The cause of the fire was unable to be determined.

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1 www.rand.org/topics/community-resilience.html

2 Grass Fire leaves blackened reminder of its Rage: Western Producer http://www.producer.com/2012/09/grass-fire-leaves-blackened-reminder-of-its-rage%E2%80%A9/

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Part 4: Environmental Outlook

4.1 Introduction

Our environment is the foundation not only for much of our economy, but also for our health and wellness. Clean air and water are as critical for economic drivers such as agriculture as they are for ensuring our personal health. As with many communities, our environment presents both challenges and opportunities, addressing both will help us remain a healthy, prosperous community.

In terms of biodiversity, Lethbridge has one of the largest urban parks systems (per capita) in western Canada. However, the condition of the wetland, grassland and riparian ecosystems within those areas is often suboptimal. Historic disturbance combined with ongoing issues such as invasive plant species continue to impact the health of the ecosystems within the city.

Water quality and quantity are critical issues for a city that is located in an arid environment. Businesses and residents in Lethbridge access their water from the Oldman River and are therefore impacted by users upstream of the city. In addition, streamflows in the Oldman River have declined by 57% over the past 100 years. More than 80% of the water in the River is allocated for agricultural irrigation while municipal demands account for only 1% of the total water usage. Overall, water quality in the Oldman River is good, however, seasonal variations in turbidity (cloudiness) result in high levels of suspended particles during spring runoff in March and April.

Air quality is an issue of increasing concern in Lethbridge as both ozone and fine particulate matter have exceeded levels that trigger the need for improvement. Air quality is difficult for a single jurisdiction such as Lethbridge to address on its own, so the development of a regional airshed is an important strategy to manage air quality.

The adoption of waste management strategies for both the residential and industrial, commercial and institutional sectors is expected to result in significant improvements in waste management in Lethbridge. Currently, Lethbridge generates significantly more waste per capita than either Alberta or Canada. In 2012, Lethbridge generated 1090 kg of waste per person versus 1009 kg for each Albertan and 710 kg for each Canadian. Currently, Lethbridge diverts about 10% of its residential waste through recycling.

Lethbridge is fortunate to be situated in a prime location for the development of renewable energy both from solar and wind. Within the city, the development of micro-generated energy has grown dramatically since 2010 with over 67,000 kW of energy being produced. On the consumption side, Lethbridge uses less electricity per capita than the Canadian average.

Climate change is expected to be the most significant environmental issue in the coming years. Climate data shows that Lethbridge is already seeing increases in mean temperature, which has increased by 1.6 °C since 1950. Lethbridge is also seeing an average of 15 fewer days that are colder than -20 °C and 6 more days where temperatures are greater than 30 °C. Responding and adapting to the impacts of climate change, including constraints on water and severe weather will become increasingly important.

4.2 Biodiversity

The International Convention of Biological Diversity (1993) defines biodiversity as “the variability among living organisms from all courses including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.”

Within Lethbridge, biodiversity is represented by a range of grassland, coulee, wetland and river valley ecosystems that each have their own distinct species. The wide range of flora and fauna contribute to the city’s biodiversity.

The river valley’s diverse vegetation and landforms are home to a large assortment of mammals, birds, amphibians, reptiles, fish, invertebrates and a number of species at risk (Helen Schuler Nature Centre, nd). Some of the common species found in the river valley are the Nuttall’s cottontail and white-tailed prairie hares, porcupines, Richardson’s ground squirrels, striped skunks, beavers, badgers and mule and white-tailed deer. There are many other species that have been sighted all over the city, including over 230 species of birds recorded in Lethbridge, with the greatest diversity found in the river valley.

HIGHLIGHTS:

- Within the city limits, Lethbridge has 134.6 hectares (ha) of wetlands, 514.1 ha of riparian areas and 2058 ha of grassland habitats.
- These habitats have been impacted by human activity, with only 16% of grasslands in a natural state and only 7% of riparian areas in a healthy functioning condition.
- Lethbridge is home to at least 31 species of animals and 13 species of plants that are at-risk.
- Lethbridge has 38.16 km2 of park spaces, which is some of the highest per capita in western Canada

4.2.1 Ecosystem Services

Ecosystem services are the ecological goods and services that have benefits for everyone.

Ecosystem services can be broken into four main categories:

Provisioning services are those services that provide a direct material output such as food, raw materials, fresh water, and medicines.

Regulating services are those services that act as a regulating or mitigating force on our environment. Examples include air and water filtration, carbon sequestration, pollination, and flooding and erosion controls.

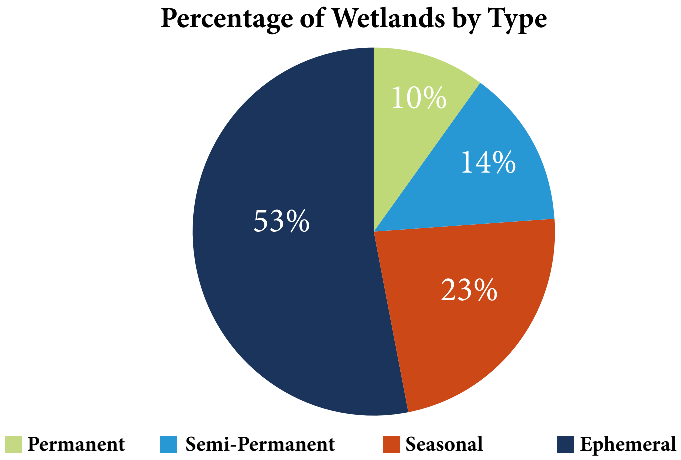
Supporting services are the services we typically think of, including providing habitat for plants and animals and protecting genetic diversity.

Cultural services are those services that we gain from our enjoyment of nature such as recreation, mental health, tourism, and spiritual connections.

In Lethbridge, healthy ecosystems provide services such as slope stability, water filtration, wildlife habitat and resiliency to major flooding.

4.2.2 Wetlands

There are 134.6 ha of wetlands in Lethbridge. These wetlands have been classified into four different types: permanent, semi-permanent, seasonal and ephemeral. Ephemeral wetlands make up the largest proportion of wetlands in the city with 53% of the area, followed by seasonal wetlands (23%), semi-permanent wetlands (14%) and permanent wetlands (10%). Wetlands provide many benefits to the community. They support biodiversity, reduce the effects of flooding and boost water quality among other benefits.



4.2.3 Riparian Areas

Riparian areas are the portion of the landscape that is strongly influenced by water and can be recognized by water-loving vegetation adjacent to rivers, streams, lakes, springs, ponds and seeps. They have been described as green zones around lakes and wetlands and bordering rivers and streams (O2, 2016). Riparian areas are one of the most ecologically diverse ecosystems in the world. They sustain fish and wildlife populations, improve water quality, provide stable water supplies and support people on the landscape.

There are 514.1 ha of riparian area in Lethbridge. Alberta's Riparian Habitat Management Society (Cows and Fish) evaluated the health of riparian areas in Lethbridge.

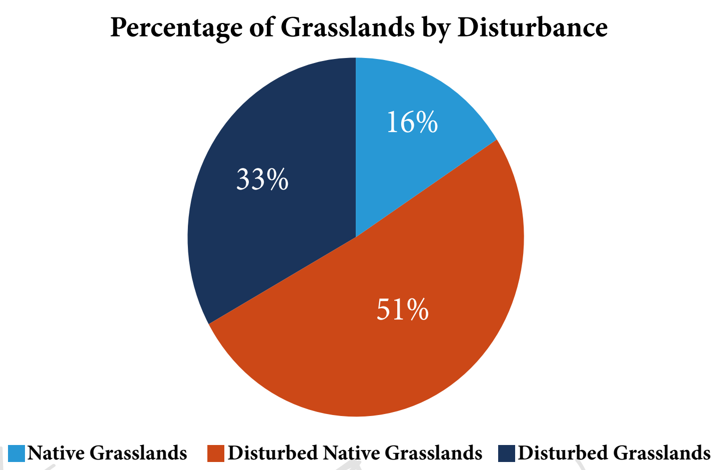
The overall health assessment of these areas shows they are healthy, but with problems. Ten out of the fifteen sites (67%) were rated in this category. One site (7%) rated healthy and the other four sites (27%) rated unhealthy. This compares to overall riparian health in the South Saskatchewan River Basin where 26% of riparian areas are healthy, 25% are unhealthy and 49% are healthy with problems (Wood and Ambrose, 2011).

The primary health issues with the riparian areas in Lethbridge are:

- Invasive plant species occur on every site and collectively occupy more than 15% of the area surveyed. The most common invasive species are leafy spurge and Canada thistle.
- Disturbance-caused plant species dominate the understory and open areas of most sites. Some of the common species are smooth brome, Kentucky bluegrass and crested wheat grass.
- Root mass protection is lacking along portions of the riverbank of the Oldman River. These deep-rooted, riparian vegetation (such as native trees and shrubs) are important for maintaining bank stability.
- Removal of water from the system has restricted the supply of water available for supporting riparian ecosystem in the city.
- Control of flood/peak timing by upstream dams has affected the long-term sustainability potential of cottonwood forests and other natural plant communities

4.2.4 Grasslands

There are 20.6 km2 (2058 ha) of grasslands within the city. These grasslands are diverse and the vegetation that is able to grow is dependent on soil and climatic conditions. The native grasslands in the river valley are mostly intact on the steep south-facing slopes. The prevailing native grasses are the wheatgrass/needle-and-thread grass/June grass community. On the plateau and gently rolling range areas in Lethbridge, only 16% of Lethbridge's grasslands are in a natural state. The modified grasslands have more than 70% cover from non-native species. This is mainly due to the historical conversion of native grassland to agricultural lands (O2, 2016).



4.2.5 Species-at-Risk

Lethbridge's native landscape has been significantly altered over time due to the pressures of population growth and economic development. This has had a significant impact on the landscape of the region. In the *Profile of the South Saskatchewan Region* it is estimated that "the South Saskatchewan Region has 80% of the province's species at risk (Government of Alberta, 2011)." These species include mammals, birds, amphibians, reptiles, fish, plants and invertebrates.

In addition to the 31 species of birds, mammals, reptiles and amphibians, at least 13 rare plants have been identified in the river valley based on rare plant surveys conducted in 1997, 1998 and 2004. A new species-at-risk inventory is necessary to evaluate the health of biodiversity in Lethbridge. Species-at-risk are the most vulnerable components of biodiversity and require special attention to maintain and recover their populations and habitats.

4.2.6 Invasive Species

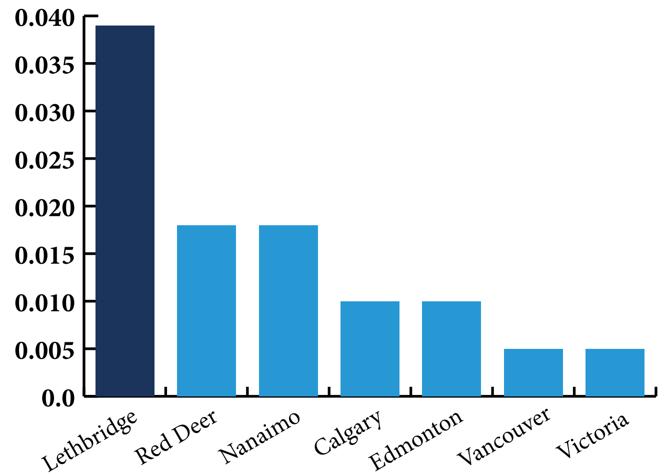
Invasive species are those species introduced by human activities outside their natural past or present distribution that threaten the environment, economy or society, including human health.

In Lethbridge, there are many invasive species that are cause for concern. The most common invasive species that are found in Lethbridge are leafy spurge, Canada thistle and spotted knapweed. In the Cows and Fish assessment of riparian areas in the river valley, leafy spurge was found at every site. Nine of the fifteen sites that were evaluated had more than 50% of the riparian covered in disturbance-caused herbaceous species. These species covered approximately 56% of the project area. The more prevalent of these herbaceous species are smooth brome, Kentucky bluegrass and crested wheatgrass. In total, 63 different introduced herbaceous species were found (Wood and Ambrose, 2011).

4.2.7 Parks

Lethbridge has 38.16 km2 of park space within the city limits. The per capita park and open space in Lethbridge is 0.039 ha. In comparison to other cities in Alberta, such as Calgary (0.007 ha) and Red Deer (0.018 ha), we have a large amount of park and open space per capita.

Per Capita Area of Parks and Open Space bv City (in hectares)



4.2.8 Urban Forest

Trees help to purify the air, reduce storm water runoff and erosion, create wildlife habitat, store carbon dioxide, produce oxygen and save energy through shading and wind reduction. There are 91 different species of trees within Lethbridge. The three most common species are the green ash, American elm and white poplar (Community Foundation of Lethbridge and Southern Alberta, 2015). As Lethbridge is naturally a grassland, the majority of trees in the city have been planted - other than cottonwood species in the river valley.

One large tree can absorb 150 kilograms (kg) of Carbon Dioxide (CO2) per year and filter airborne pollutants including fine particulate matter. An analysis on the public tree inventory in Lethbridge was conducted in 2011 and reported that trees in Lethbridge store over 128 million kg of CO2. Public trees improve air quality through the deposition of over 24,000 kg of other air particles and chemicals (City of Lethbridge, nd). Pressures on urban forests include: invasive species, pests, disease, drought, climate change and urban development.

Tree canopy is the uppermost layer in a forest and it is formed by the crowns of the trees. Tree canopy provide urban areas with a significant cooling effect and cool cities by between 2°C and 8°C. This provides increased comfort to citizens and provides an energy cost savings. Public trees in Lethbridge save an estimated 18,000+ of gigajoules of electricity and 135,000+ of gigajoules of natural gas annually (City of Lethbridge, nd).

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4.3 Water

All of the water used by the City of Lethbridge comes from the Oldman River. Drinking water from the Oldman River is processed through the water treatment plant. On average the water treatment plant processes 53 million litres of high quality drinking water on a daily basis (City of Lethbridge, nd).

The City of Lethbridge water distribution system consists of 570 km of water main and 6 reservoirs with pump stations. The water mains and pump stations deliver water to residences and businesses through the city and to neighbouring communities. The water treatment plant is capable of treating 150 million litres of water per day (City of Lethbridge, nd).

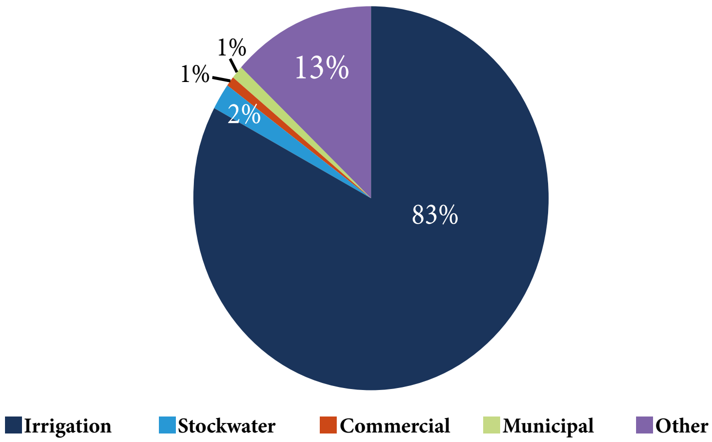
HIGHLIGHTS:

- Flows in the Oldman River have decreased by 57% since 1912.
- In 2015, the per capita water usage in Lethbridge was 213 litres per person per day.
- Water quality is generally good, however, high turbidity may be observed during spring runoff

4.3.1 Water Quantity

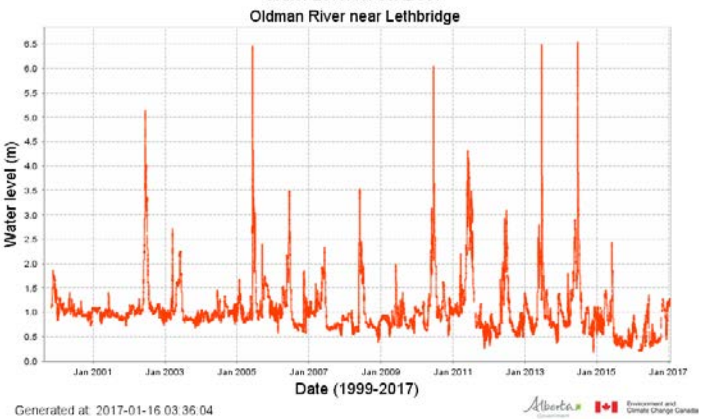
Water allocation, and the distribution of water resources through licensing, is an increasingly important issue in Alberta, including the Oldman Watershed where water allocations account for approximately 300% of the median flow.

Water Allocations in the Oldman Watershed



There is evidence to suggest that streamflows on the Oldman River have decreased significantly over the past 100 years. Between 1912 and 2003, flows on the Oldman River have decreased by 57%. Even over the past 15 years, an ongoing decline in water levels for the Oldman River can be observed (Government of Alberta, 2017).

Water Levels in the Oldman River Near Lethbridge 1999-2017



In 2015, the average person living in Lethbridge consumed 213 litres of water a day not including water used for industrial or commercial purposes. Monthly averages remain consistent throughout most of the year, however, there is a significant increase in water consumption over the summer as people use more water to fill pools, water lawns and wash cars.

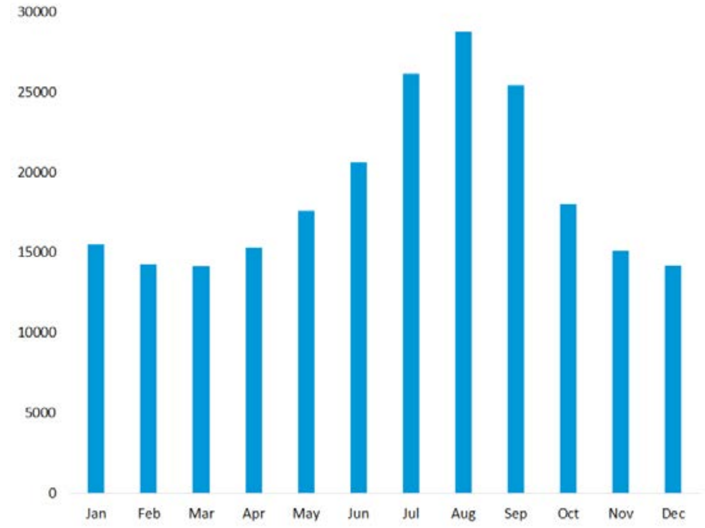
With the exception of 2015 there has been a gradual decrease in the amount of water consumed each year. This is likely due to increased education and awareness on how to conserve water, increased environmental awareness and due to improvements in technology, such as high efficiency appliances.

Per capita water usage in Lethbridge and other cities in Alberta is relatively similar. In Alberta, average daily water consumption is 169 litres per capita (2013). This number is lower than Lethbridge's average in 2013, which was 203 litres. This is likely due to the impact that industry has on Lethbridge's numbers. In many other cities in Alberta, like Red Deer and Calgary, education and awareness around water conservation have reduced water consumption significantly. Hopefully, this trend continues and we will see a decrease in water consumption in Lethbridge (Alberta Municipal Benchmarking Initiative. 2015).

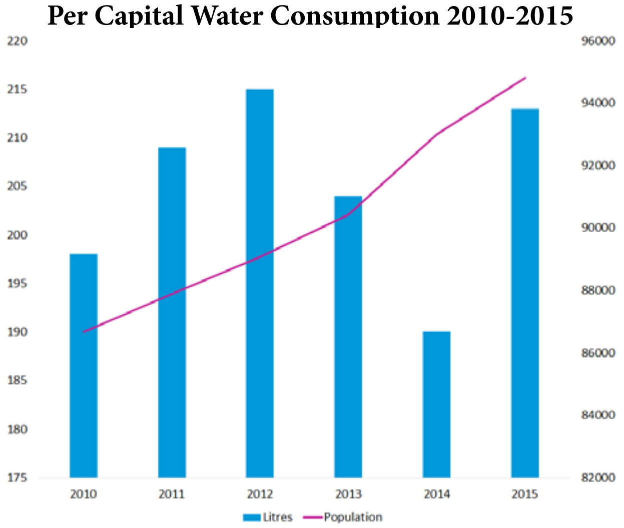
Water usage in Canada is higher than in most other countries in the world. In 2011, the average Canadian used 251 litres per person, per day which is a significant decrease since 1991 when the average was 342 litres per person, per day.

In Lethbridge, the amount of water loss by utilities is very low. The City of Lethbridge has been proactive about water loss by monitoring the integrity of aging pipes and systems. There has been a consistent decrease in the number of water main breaks over the past forty years. Fixing these issues before they turn into a significant problem has been a priority for city utilities. While there is a small fluctuation, for the most part, these numbers have stayed similar over the past eight years. Limiting water losses ensures that infrastructure is maintained and large amounts of water are not wasted.

Average Monthly Residential Water Use



Per Capital Water Consumption 2010-2015



Apparent and Real Water Losses 2007-2015

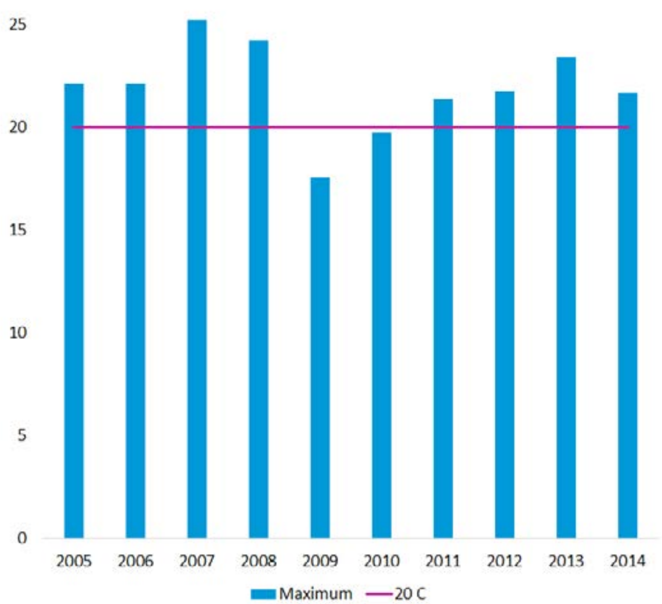
4.3.2 Water Quality

There are many factors that influence water quality. A major factor is the fluctuation between river flow in the spring and summer, where water flow is high due to snow melt and spring rains, as opposed to flow decreases into the fall and winter. This can impact the amount of total suspended solids and turbidity in the water during the spring and summer. Other factors that influence water quality include land-use activities such as logging, the use of off road vehicles, modification in river flow caused by water diversion, reservoir operations, irrigation district return flow and the return of treated wastewater, predominantly from municipal wastewater facilities. Any activity that alters water quantity or affects inputs from point sources (eg. storm water outfalls) or non-point sources (eg. agricultural runoff) has the potential to influence water quality (Canadian Council of Ministers of the Environment. 1999).

Water temperature is an important indicator for aquatic systems that, in turn, influences other indicators such as dissolved oxygen and species composition. Water temperatures fluctuate seasonally and within river systems such as the Oldman, colder waters are typically found closer to the headwaters.

In the Oldman River at Highway 3 in Lethbridge, water temperatures typically exceed 20 °C during the summer months. Occasionally, temperatures may also exceed 25 °C (Alberta Environment, 2015).

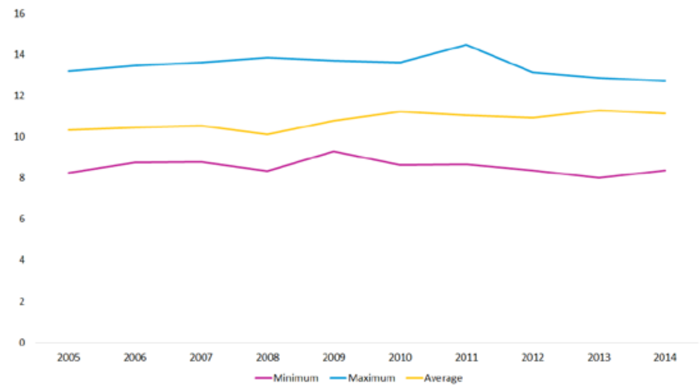
Maximum Water Temperatures in the Oldman River near Lethbridge



Dissolved oxygen is necessary to support aquatic life in freshwater ecosystems. Dissolved oxygen enters the water system through the photosynthesis of aquatic plants and from the atmosphere (Water Research Centre, 2014). Dissolved oxygen levels are negatively impacted by higher water temperatures and by increased levels of organic materials such as sewage and fertilizer runoff (Canadian Council of Ministers of the Environment. 1999).

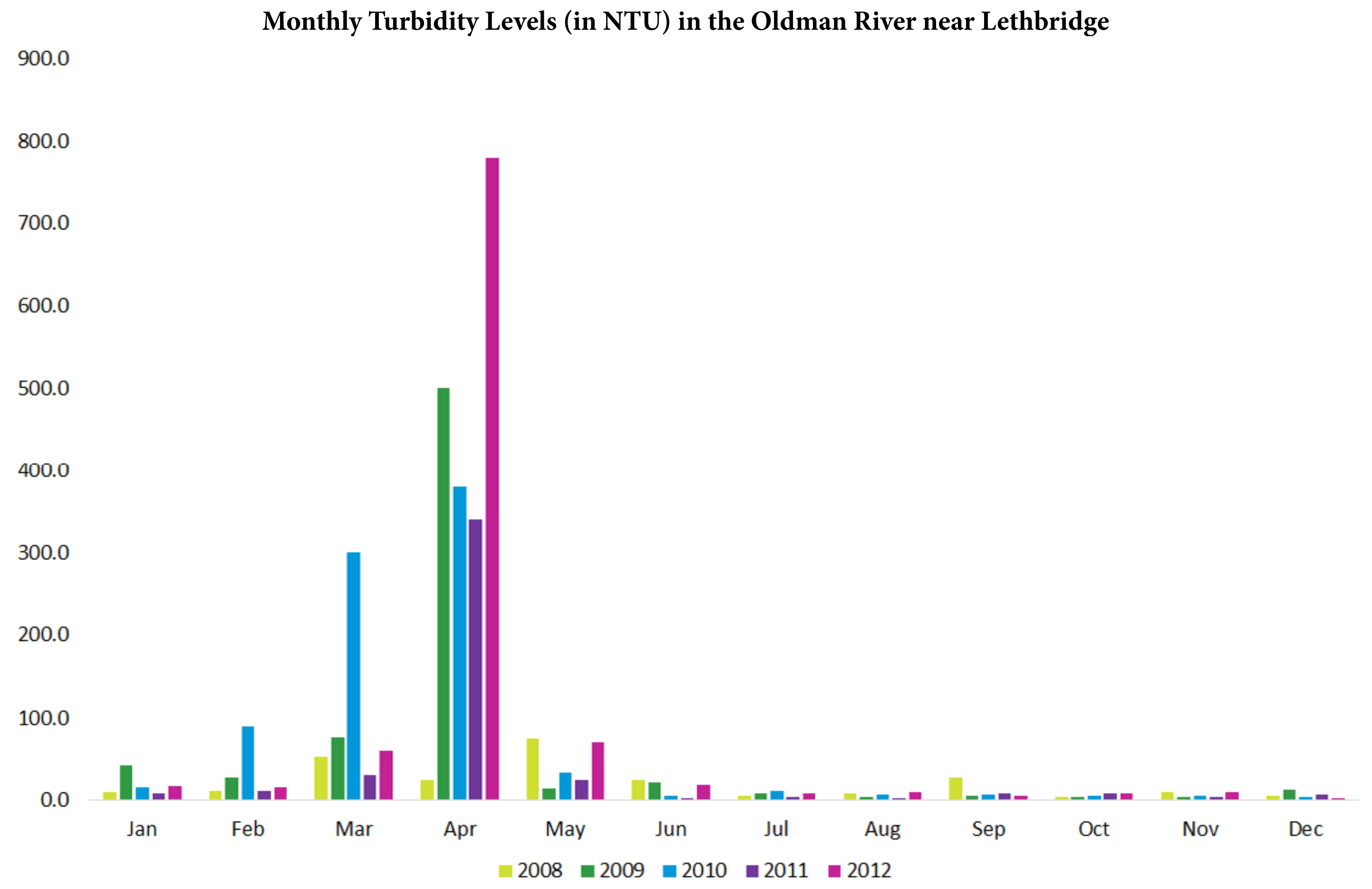
For the most part, dissolved oxygen levels in the Oldman River at Highway 3 in Lethbridge vary seasonally, but have remained consistent year to year over the past 30 years (Alberta Environment and Parks. 2015). Dissolved oxygen in the water in this portion of the river does regularly drop below the 9.5ug/L required for the early life stages of cold water fish.

Maximum, Minimum and Average Dissolved Oxygen Levels (ug/L) in the Oldman River near Lethbridge



Turbidity or cloudiness, of the water is determined by the presence of suspended particles such as clay, silt, organic matter and living organisms. High turbidity may reduce light transmission, and therefore reduce photosynthesis of aquatic plants (Alberta Environment and Parks. 2017).

High turbidity can be seen in the Oldman River during spring flooding in April or May. During these events, turbidity may increase to several hundred NTU (Nephelometric Turbidity Units) as compared to less than 10 NTU during other parts of the year (Alberta Environment and Parks. 2015).



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City of Lethbridge [Fig 9, 10, 13, 14]

AB Env and Parks [Fig 21, 22, 23]

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4.4 Air

Over the past 30 years, there have been significant improvements to overall air quality in Canada due to increased awareness of the harmful effects that poor air quality can have on human health and the environment. Policy shifts and regulatory changes by federal and provincial governments have helped create technological advancements in industrial sectors which decreased the amount of pollutants in the air. While there have been improvements to air quality, further action is still required. Air quality targets are often exceeded and this can impact human, animal and soil/plant health.

The South Saskatchewan Region Air Quality Management Framework was created as part of the South Saskatchewan Regional Plan to focus on the ambient air quality of the region. The Framework sets triggers and limits for PM2.5, O3 and NO2. These include national and provincial triggers and limits. In this report, air quality reporting is calculated in two different ways. One is measured by the concentrations of gaseous pollutants which have been calculated in parts per billion (ppb). The other is calculated as micrograms of gaseous pollutants per cubic meter of ambient air (μg/m3).

HIGHLIGHTS:

- Levels of ozone and fine particulate matter have exceeded thresholds and require that action be taken to reduce these levels.

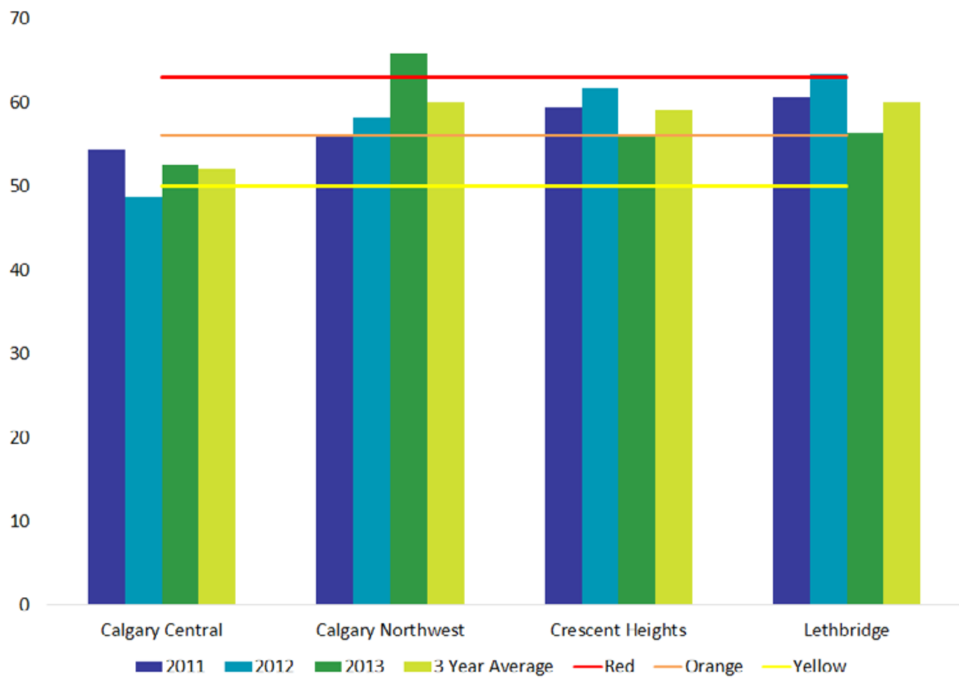
4.4.1 Ozone (O3)

Ozone in the upper atmosphere (10 to 50 kilometres above the earth's surface) protects the earth from the sun's harmful ultraviolet radiation. However, in the lower part of the atmosphere, it is harmful to human-health. Ground-level ozone (O3) forms just above the earth's surface. It is produced when Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs) react to sunlight and stagnant air. Both NOx and VOCs are emitted by natural sources and human activity. The majority (95%) of NOx is emitted by human activity, such as emissions from vehicles, homes, industries and power plants. VOCs from human activity come mainly from gasoline emissions, oil and gas production, residential wood combustion and the evaporation of liquid fuels and solvents.

O3 is a major component of smog. Exposure to O3 has been associated with eye, nose and throat irritations, shortness of breath, exacerbation of respiratory conditions, chronic obstructive pulmonary disease and asthma, exacerbation of allergies and increased risk of cardiovascular disease. In Canada, since 1990, approximately 5% of cardio-pulmonary mortalities have been attributed to O3 exposure. O3 can also have a significant impact on vegetation and may decrease the productivity of some crops (Environment and Climate Change Canada, 2016).

In comparing data from Lethbridge's air station to other stations in the South Saskatchewan Region, Lethbridge's

Ozone metric Values (ppb) Average 8 Hour Concentrations



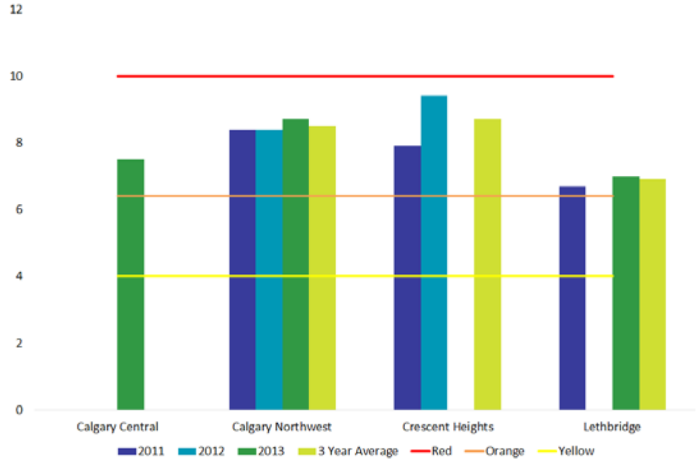
ozone readings are similar to those in other areas. Collectively, ozone in the South Saskatchewan Region has been given a yellow rating, which triggers actions for continuous improvement of air quality (Hills and Spurrell, 2017).

4.4.2 Fine Particulate Matter (PM2)

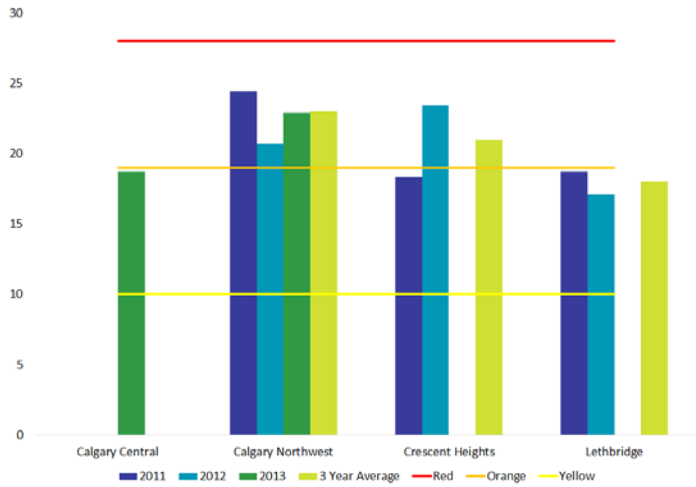
Fine Particulate Matter (PM2.5) are particles that are found in the air, including dust, dirt, soot, smoke and liquid droplets. PM2.5 is made up of particles that are less than 2.5 micrometers in diameter. They can be emitted directly or formed in the atmosphere by the transformation of gaseous emissions into secondary sources. PM2.5 can be caused by road construction, transportation, agricultural operations, combustion activities, power plants, industrial processes, construction dust from paved and unpaved roads, mining activities and prescribed burnings. Natural causes of PM2.5 include forest fires. Lethbridge often reaches high levels of PM2.5 during the summer months.

The 2011-2013 Canadian Ambient Air Quality Standards Reporting - South Saskatchewan Air Zone report shows, that the Lethbridge area is at the “yellow” management level for 24-hour values and at the “orange” management level for annual averages of PM2.5. The “orange” management level means that actions for preventing CAAQS exceedances must be taken. These actions are determined by provincial and local authorities on a case by case basis. The management responses may vary depending on the situation. To start, they verify if ambient air quality triggers or limits have been exceeded. Depending on the findings of the assessment and investigation, determinations are made about contributing sources and the need for management actions. Management actions are place-based, designed to avoid exceeding the limit and focus on maintaining or improving air quality (Government of Alberta, 2014).

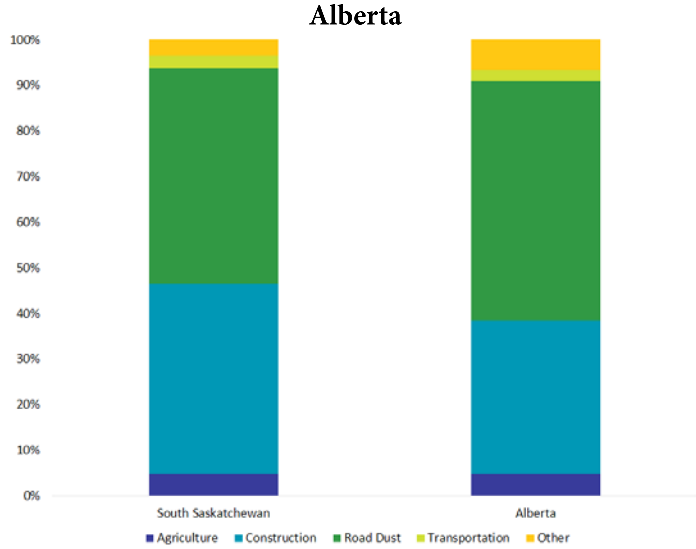
Annual Average Values for fine Particulate Matter (ug/m3)



Hourly Metric Values for fine Particulate Matter (ug/m3)



Sources of PM2 in the South Saskatchewan Region and Alberta



4.4.3 Nitrogen Oxide (NO2)

Nitrogen dioxide (NO2) belongs to the group of Nitrogen Oxides (NOx) that are emitted to the atmosphere from high-temperature combustion processes such as car engines, power plants and industrial processes. The majority of NOx emitted is Nitric Oxide (NO), which when it reacts with VOCs and O3 it forms NO2. Major sources include on-road and off-road vehicles, the oil and gas industry, electricity generation and heating. NO2 is a precursor to PM2.5 and contributes to acid deposition and eutrophication.

NO2 has adverse health effects including irritation of the lungs, decreased lung function and increased susceptibility to allergies for people with asthma. It can cause the acceleration of corrosion and degradation of materials. NOx/NO2 is a major contributor of acid rain, which affects soils, bodies of water and infrastructure. It also stresses vegetation and animals and can be harmful to building materials.

Canadian guidelines for NO2 are under review. In Lethbridge, the annual average concentration for NO2 has been well below previously established AAAQO guidelines. Data collected by Alberta Health Services shows that between August 2006 and August 2016, NO2 guidelines have not been exceeded.

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[Fig 2, 3, 4, 5] 13,14,15,16,17 Alberta Environment and Parks. 2015. Alberta Air Zones Report 2011-2013. Downloaded from: http://open.alberta.ca/dataset/a8e40ca9-38f9-4493-aa66-fe4069169f17/resource/a4e0aeaa-236d-4099-8ebb-003700a4a943/download/AlbertaAirZonesReport-2011-13-Sep2015.pdf on February 15, 2017.

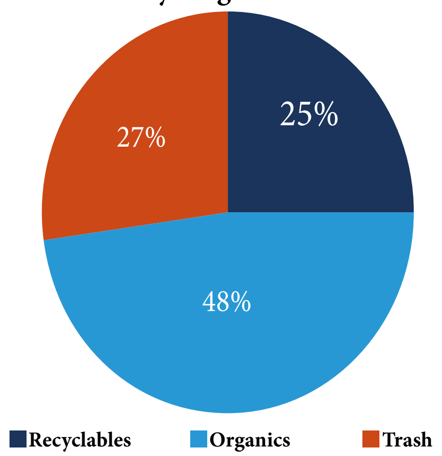
4.5 WASTE

WASTE GENERATION

Waste per capita is the average annual amount of waste that is generated per person. Waste generation in Lethbridge has remained high over the past decade. Waste generation peaked in 2008 with a per capita waste generation of 1,430 kg. Since then, there has been a steady decline in the amount of waste that each person in Lethbridge generates. However, we are still falling short of the provincial average. In 2012, the average Albertan created 1009 kg of waste, the national average in 2012 was 710 kg (Conference Board of Canada, 2017) and Lethbridge generated 1090 kg.

Lethbridge's residential waste stream is made up of 27% trash, 25% recyclables and 48% organics. The recyclables and organics are items that could be easily diverted from the Waste & Recycling Centre to reduce the amount of waste that goes into the landfill.

Waste Stream Composition for the Lethbridge Waste and Recycling Centre.



HIGHLIGHTS:

- Lethbridge consistently generates higher amounts of waste than either the provincial or federal per capita averages.
- Currently, only 10% of Lethbridge's residential waste is diverted from the landfill.

Per Capita Waster Generation (kg) in Lethbridge, Albera and Canada

4.5.1 Waste Diversion

The waste diversion rate is the percentage of waste that is diverted, divided by the total amount of waste generated. Each jurisdiction has its own definition of what is diverted. This includes materials that are composted, recycled or reused. In Lethbridge, we currently divert 10% of our residential waste at the City's three recycling depots. An additional 10% is diverted through community programs and private companies that recycle used paint, oil and electronics. From 2013 to 2015, the diversion rate from the Recycling Depots has remained stable at 10%. The amount of waste diversion from other programs is more difficult to calculate as it is all compiled separately. However, the best estimate is that this diversion rate has remained at 10% (City of Lethbridge, 2011).

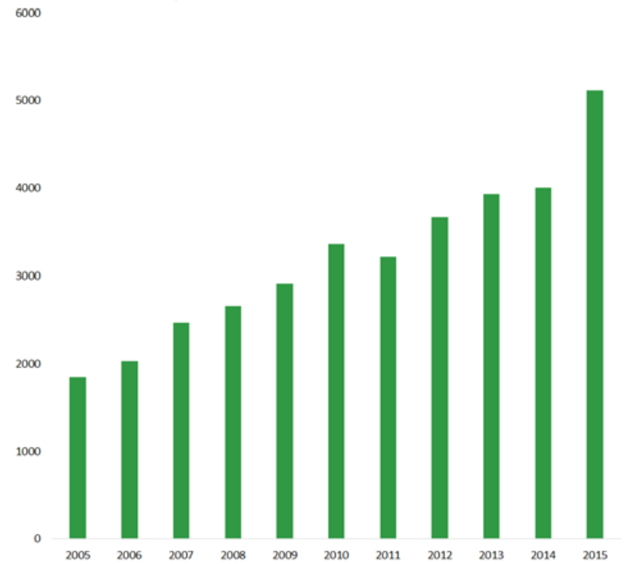
A positive trend that we have seen is the increase in the amount of organics that are being diverted from the Waste & Recycling Centre. In this case, organics are defined by the City of Lethbridge as leaf and yard waste, white wood and pallets, green wood and branches and wood chips. In 2005, 1996 tonnes of organics were diverted. Over the past ten years this has increased significantly. In 2015, 5264 tonnes were diverted at the Waste & Recycling Centre. This is a significant increase and demonstrates a positive trend towards continued diversion of organic waste.

The rate for cardboard recycling in Lethbridge increased leading up to 2009 and has remained steady since then. Since 2011, the amount of mixed paper that is recycled has steadily decreased. This is likely due to the fact that paper consumption has dropped significantly in recent years as people are opting to read documents, such as the newspaper and magazines electronically rather than in paper form.

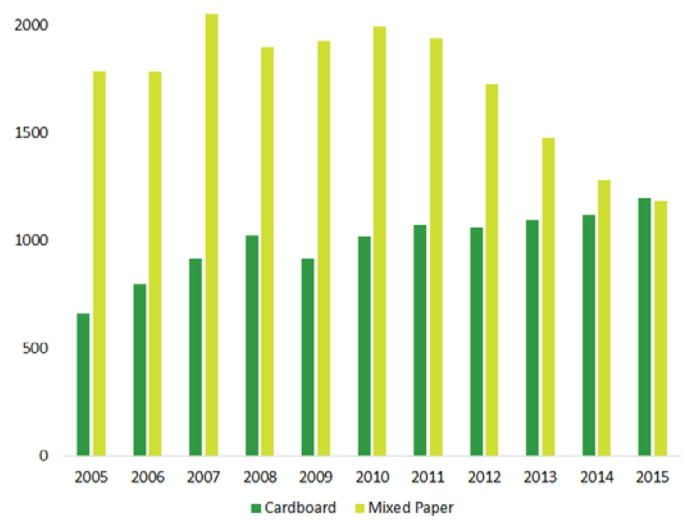
Recycling rates for metal cans and clear glass have remained fairly stable over the past ten years. Most metal cans are returned to recycling depots in exchange for payment. Mixed plastic recycling has been increasing over the past ten years. Increased awareness by the public and increased recycling capacity have allowed the recycling of all these materials to continue to grow.

The approval of the Residential Recycling Strategy and the implementation of curbside recycling beginning in 2018 is expected to cause a significant increase in the overall recycling rate in Lethbridge.

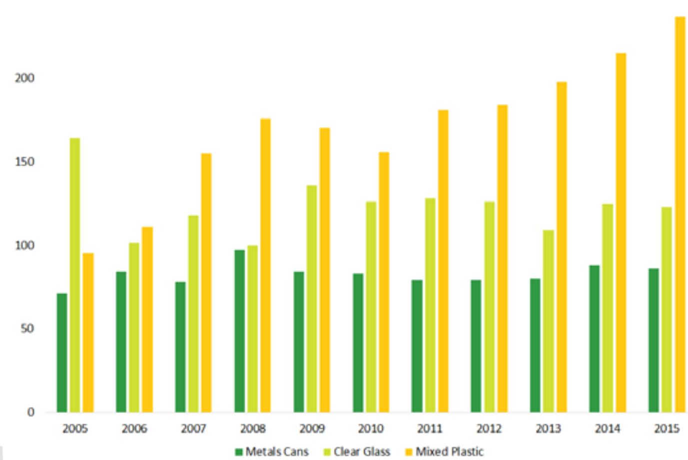
Organics Diversion 2005-2015



Cardboard and Mixed Paper Diversion 2005-2015



Metal Cans, Clear Glass and Mixed Plastics Diversion 2005-2015



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City of Lethbridge [Fig 4,5,7,8,9]

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4.6 Energy

Energy production, particularly from oil and natural gas, has been an important part of Alberta's economy for decades. With the need to address and mitigate climate impacts, the energy landscape in Alberta is shifting to include a greater diversity of energy sources such as solar and wind power.

Southern Alberta is well positioned to be a leader in wind, solar and other renewable energy sources, such as biogas. In particular, the solar energy potential for cities such as Lethbridge is significant and in excess of 1290 kWh/kW (Dodge and Kinney, nd).

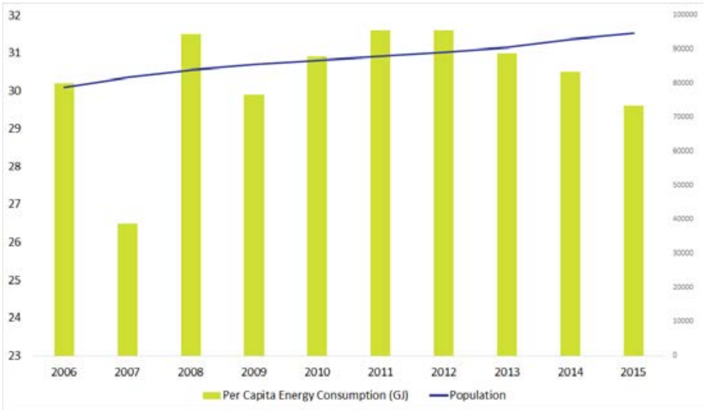
HIGHLIGHTS:

- Lethbridge uses less electricity per capita than the federal or provincial average.
- Lethbridge has a high potential for the expansion of renewable energy, including some of the best solar energy potential in Canada.
- Vehicle emissions in Lethbridge are estimated at 378 million kg of CO_2 per year.

4.6.1 Electricity Usage

Electricity consumption in Lethbridge is well below the Alberta and Canadian average. In 2015, the per capita consumption (for all sectors) of electricity in Lethbridge was 8200 kWh (29.6 GJ). There have not been any

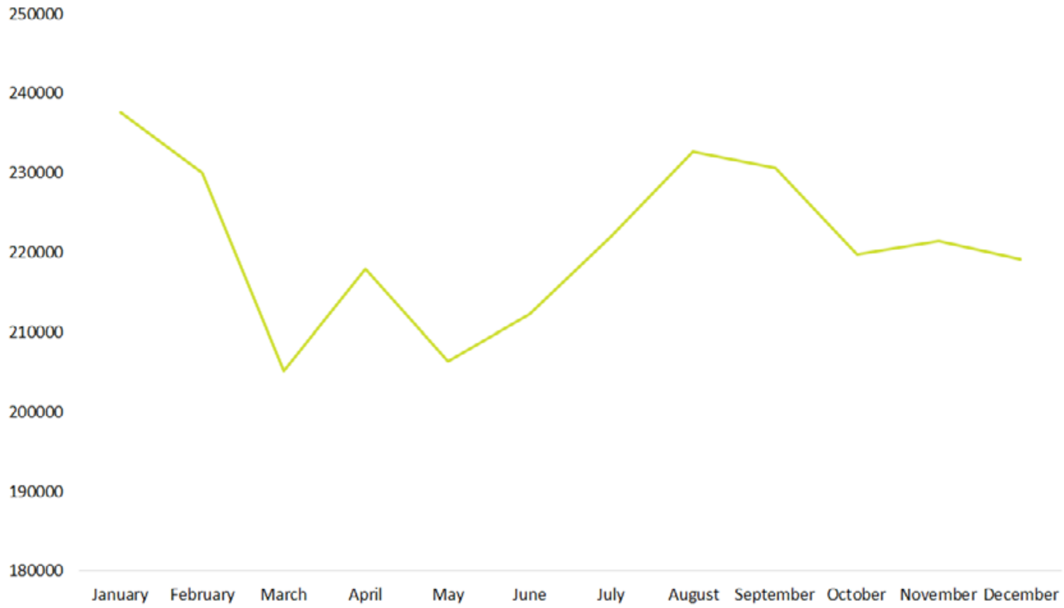
Per Capita Energy use 2006-2015



significant changes to the yearly per capita electricity consumption in Lethbridge. This number is well below the provincial and national averages for electricity consumption. Reasons for this are unclear, however, Lethbridge's mild climate and absence of a large heavy industrial sector may be contributing factors. Comparative data on natural gas consumption was not available and, as a result, overall energy consumption could not be evaluated.

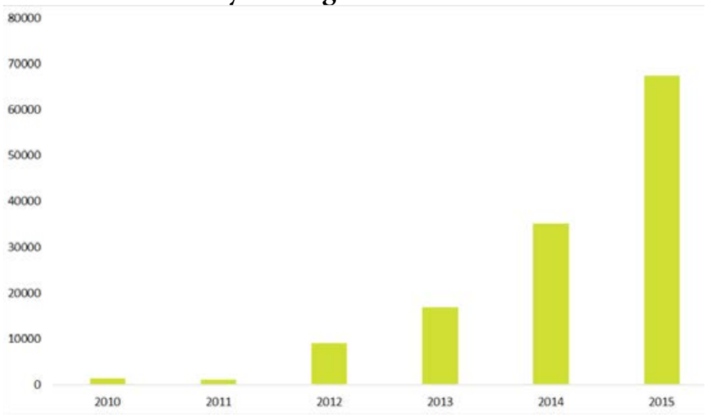
Energy usage fluctuates month to month. We consume greater amounts of energy during seasons that require additional building heating and cooling. In Lethbridge, the months that have the highest daily electricity usage are January, February, August and September. These months also have the coldest and warmest average temperatures. Months with the lowest energy consumption are typically months when the weather is the mildest.

Average Monthly Electricity Consumption



The energy source, air temperature and the time of the year all have an impact on the amount of electricity used in Lethbridge. With temperature extremes, there is an increase in heating and cooling. In months with less daylight there is often an increase in electricity used.

Electricity Microgeneration 2010-2015



4.6.2 Renewable Energy

There are a growing number of energy micro-generators in Lethbridge. The Government of Alberta defines micro-generation as "the production of electricity on a small scale, using renewable and alternative energy sources, typically solar and wind, by individual home owners and small businesses, as well as municipal and community buildings, such as a fire hall, to meet their electricity needs. Other sources of energy include biomass, micro-cogeneration, geothermal sources, and fuel cells." The capacity of micro-generation in Lethbridge has grown from 1448 kW in 2010 to 67,257 kW in 2015. This is a growth of 1650% (Government of Alberta, 2015).

4.6.3 Vehicle Emissions

As the private vehicle is the primary mode of transportation in Lethbridge, it is important that we look at the impact that vehicle emissions can have on our environment. We do not have Lethbridge-specific data on vehicle emissions, however, we have representative information for the province.

Based on vehicle registrations, there were 80,013 vehicles in Lethbridge in 2015. This translates to 0.84 vehicles per person. With over 90% of commuters using a vehicle as their primary source of transportation, there are a lot of vehicles on our roads which contribute to greenhouse gas emissions. According to the United States Environmental Protection Agency's (EPA) Greenhouse Gas Equivalencies Calculator the vehicles on Lethbridge roads produce approximately 378,789,223 kilograms (kg) of CO2 equivalent each year (United States Environmental Protection Agency, 2016).

4.6.4 Mode Share

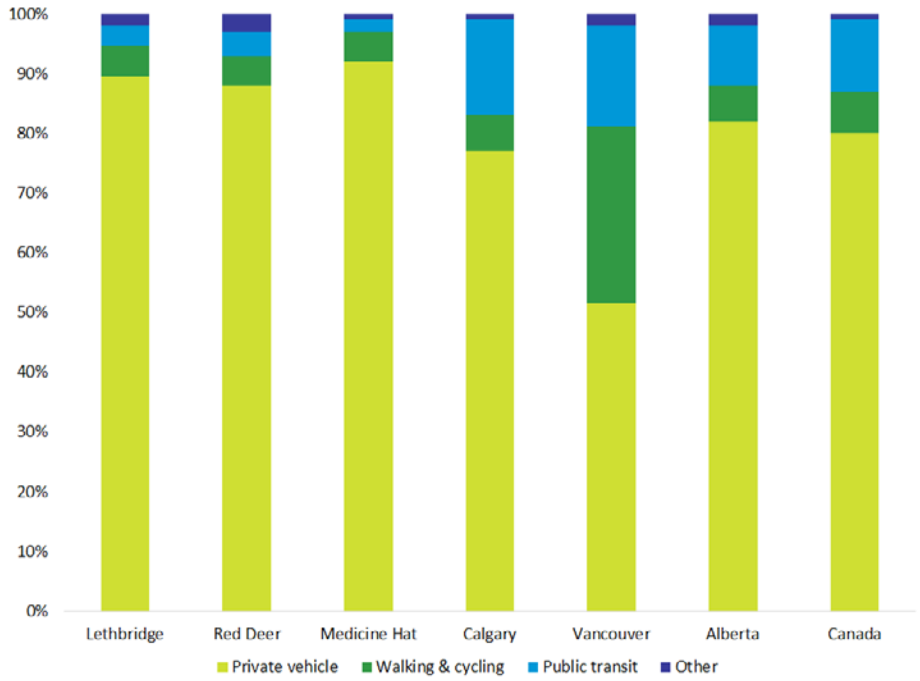
Mode share is the percentage of commuters/that are using a particular type of transportation to get to work. The National Household Survey shows that private vehicles are the dominant mode of transportation in Lethbridge. It accounts for 90.4% of all trips (either by drivers or passengers). Walking and bicycling (active transportation) make up 5.2% of the mode share while public transportation is only 3.3% (Statistics Canada, 2011).

In contrast, Calgary has a private vehicle mode share of 76.7%, an active transportation share of 6.1% and a public transportation share of 15.9%. In Edmonton, the private vehicle mode share is 82.2%, active transportation makes up 5.2% and public transportation is 11.3% (Statistics Canada, 2011).

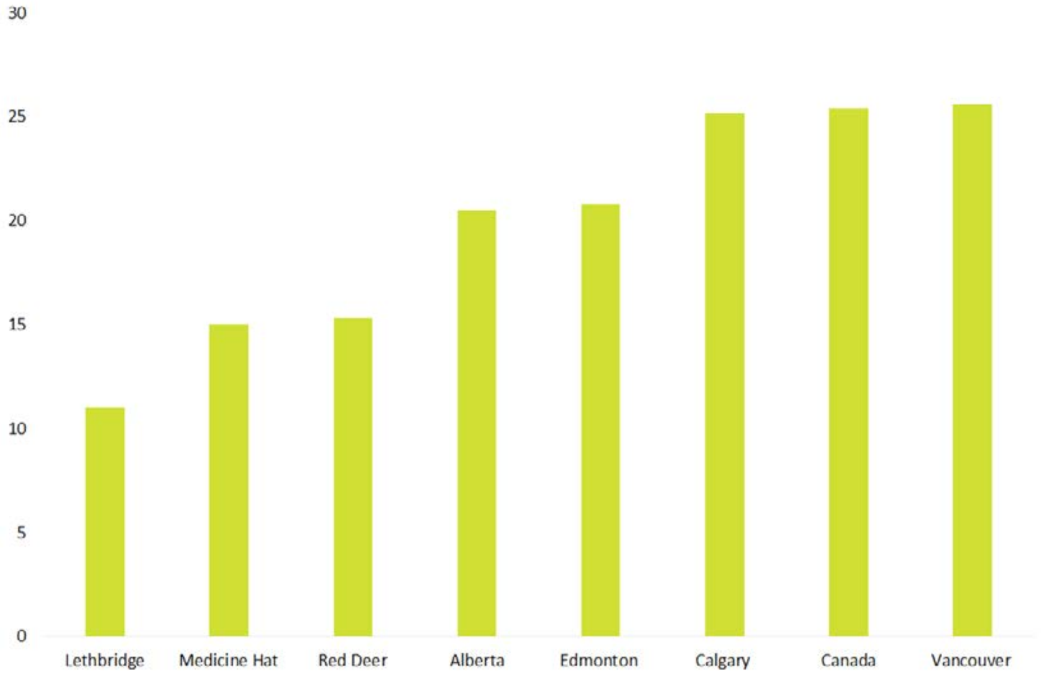
However, both Red Deer and Medicine Hat have mode shares that are similar to Lethbridge. Logically, there appears to be a relationship between the city size, length of commute and availability of public transit with mode share. As populations increase, so does the mode share for active and public transportation.

Lethbridge differs from other cities in having a very short commute time. This means that although a high proportion of Lethbridge residents use vehicles to commute to work, the duration and impact of that transportation is slightly less than other cities.

Comparison of Mode Share Between Different Jurisdictions



Average Commuting Time for Different Cities in Alberta and BC



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City of Lethbridge [Fig 6,7,9]

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4.7 Climate Change

A warming climate will bring changes that can affect our water supply, agriculture, power and transportation systems, the natural environment and human health and safety. Although it is difficult to predict the exact impacts of climate change, what is clear is that the climate we are accustomed to is no longer a reliable guide for what to expect in the future.

HIGHLIGHTS:

- The mean temperature in Lethbridge has increased by 1.3 C since 1950.
- The growing season in Lethbridge has increased by 23 days since 1950.
- Water scarcity from climate change is expected to have the greatest impact in southern Alberta.

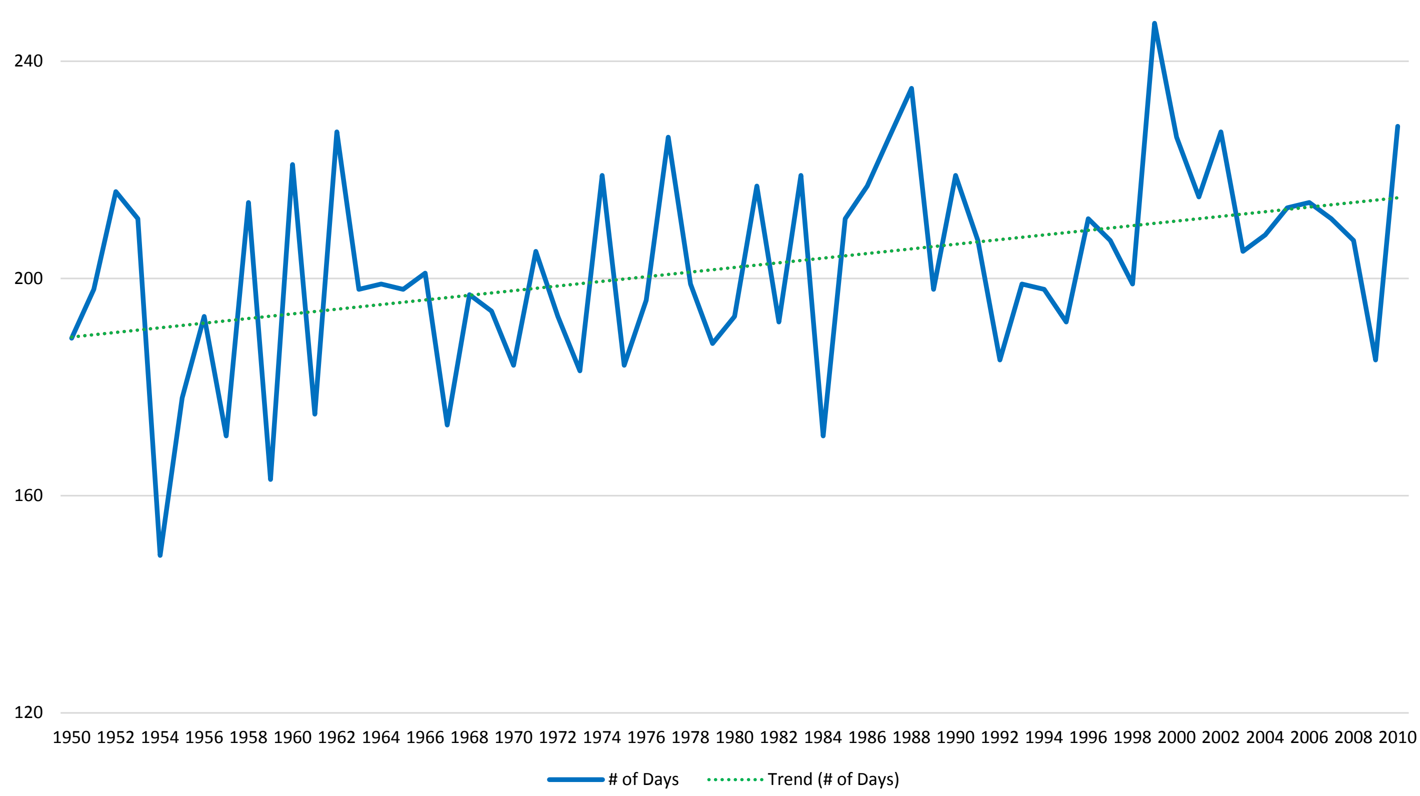
4.7.1 Temperature

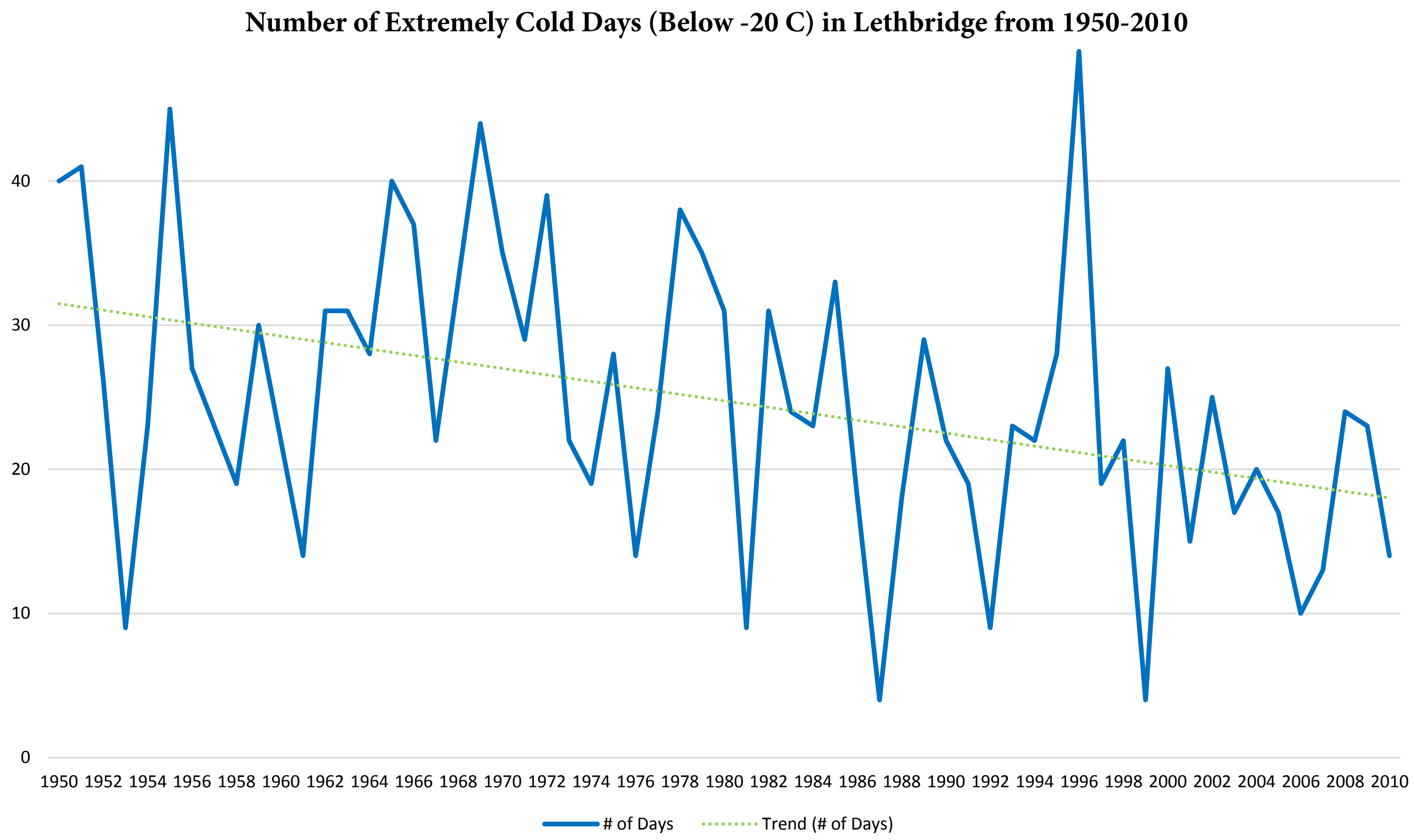
In Lethbridge, the mean temperature has increased by 1.3°C since 1950. The trend has indicated that most of the warming has occurred in the winter, where the mean winter temperature has increased by 4.1°C since 1950. In 1950 the mean winter temperature was -7.4°C by 2010 it had increased to -3.3°C. The trend also indicates that the mean summer temperature has increased by 0.7°C since 1950.

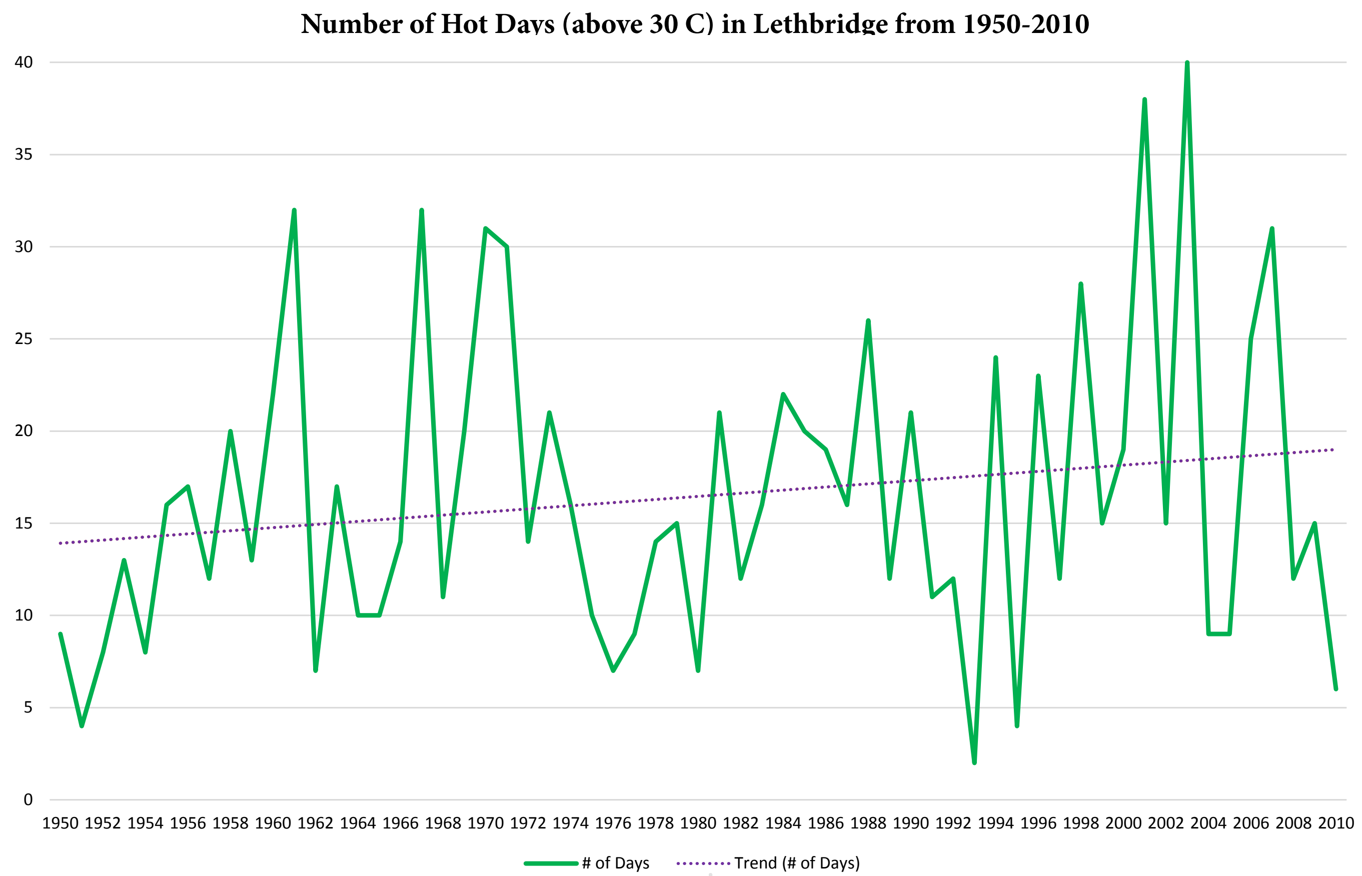
Changes can be seen in the number of extremely cold (below -20°C) and extremely hot (above 30°C) days that Lethbridge has experienced. On average, the number of extremely cold days has decreased from 30.9 days in 1950 to 15.9 days in 2010. Conversely, the number of extremely hot days has increased from 12.1 days in 1950 to 18.1 days in 2010.

The length of the growing season in Lethbridge has also increased from an average of 187.7 days in 1950 to 210.7 days in 2010.

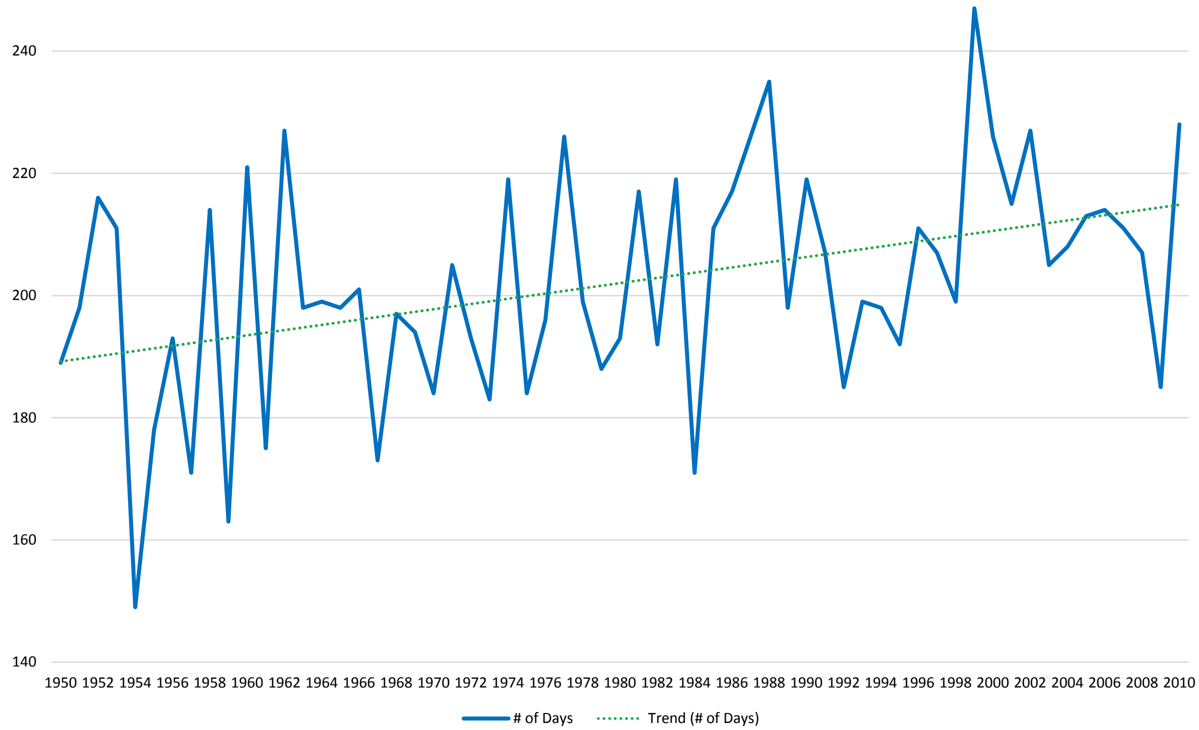
Average Mean Temperature in Lethbridge from 1950-2010




Number of Extremely Cold Days (Below -20 C) in Lethbridge from 1950-2010
0
10
20
30
40
1950 1952 1954 1956 1958 1960 1962 1964 1966 1968 1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010
# of Days
Trend (# of Days)


Number of Hot Days (above 30 C) in Lethbridge from 1950-2010
0
5
10
15
20
25
30
35
40
1950 1952 1954 1956 1958 1960 1962 1964 1966 1968 1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010
# of Days
Trend (# of Days)

Growing Season Length (days) for Lethbridge from 1950-2010



4.7.2 Impacts

WATER

Water scarcity resulting from climate change presents the greatest risk to the prairie provinces, including Alberta. As patterns of temperature and precipitation change, Southern Alberta is expected to face increased competition for water resources for use in homes, businesses, agriculture and energy production.

Water scarcity is already a concern in Lethbridge as our watershed currently has a great deal of competition for existing water resources. Drought conditions may be exacerbated by changes in precipitation patterns, such as increased rainfall replacing snowfall precipitation. Precipitation from rainfall is less likely to be stored as groundwater or in the soil, increasing the potential severity of droughts (Larson et al, 2011). Drought conditions could have serious implications for the agricultural economy, as demonstrated by the 2002 drought, which severely affected crops and resulted in livestock feed shortages (Insurance Bureau of Canada, 2016). With current water allocations in the Oldman River exceeding supply, water shortages may have significant impacts on residents and our economy.

BIODIVERSITY

Climate change may increase occurrences of wildfires, which will displace species and destroy habitats. Changes in temperature, precipitation, snow pack and glaciers will affect the rate of stream flow and the timing of peak flows. This will affect ecosystems that are dependent on access to water as well as aquatic ecosystems, including the availability of water for wetland ecosystems (Schneider, 2013), which will negatively affect many species that depend on them. Changes in the temperature of streams and lakes is also a major issue caused by climate change. As the temperature of water changes, the habitats for cool and cold water fish species are changing (United States Environmental Protection Agency, nd). Often cold water aquatic species are being displaced and are retreating to upstream locations within watersheds.

Land development for urban sprawl, agriculture and energy production are increasing habitat fragmentation. This lessens the ability of plants and animals to adapt to climate change by moving to new areas in response to warmer temperatures or changes in water availability.

Climate change is also affecting bird wintering ranges. Some bird species have shifted their ranges or altered their migration habits as they adapt to changes in temperature and other environmental conditions. This is occurring with other species as well, such as marine species that are shifting their ranges further north (United States Environmental Protection Agency, nd). In addition to changes in the distribution of native species, it is also likely that new and existing invasive species will increase due to climate change (Chai et al, 2014).

AIR QUALITY

Scientists project that warmer temperatures from climate change will increase the frequency of days with unsafe levels of ground-level ozone, a main component of smog. Unless aggressive changes are made to reduce greenhouse gas emissions, there will be increased instances of air quality health advisories and increases in respiratory and cardiovascular illnesses. Warmer temperatures and shifting weather patterns can also worsen air quality (United States Environmental Protection Agency, nd).

HEALTH & ECONOMY

Climate change will have several impacts on our society including affects to human health, infrastructure and transportation systems as well as energy, food and water supplies. Some of these vulnerabilities include:

- An increase in frost-free days have lengthened the pollen season for common allergens increasing the likelihood of allergic reactions and associated health impacts;
- Different geographic locations will face different challenges. Locally, changing climate patterns are expected to exacerbate drought conditions;
- People who live in poverty, older adults and immigrant communities have been found to be at an increased risk of facing challenges to climate change as they will face increased exposure;
- Warmer temperatures and extreme heat will have great impacts on children and older adults;
- Warmer temperatures and shifting weather patterns can worsen air quality, which can lead to asthma attacks and other respiratory and cardiovascular health effects;
- Reduction in access to safe food and drinking water;
- Damage to infrastructure from flooding, fire and other events;
- Increase in stomach and intestinal diseases (particularity following power outages); and
- Increase in the geographic regions where vector borne diseases (diseases spread by mosquitoes, ticks and fleas) can spread.

The economic impacts of climate change could be significant. The annual cost could be as much as 5% of global GDP (Lu, 2015). It is likely that some aspects of the economy will be impacted more than others. In particular, those industries that rely on certain weather conditions such as agriculture and winter tourism (eg. Skiing) are potentially more vulnerable (United States Environmental Protection Agency, nd).

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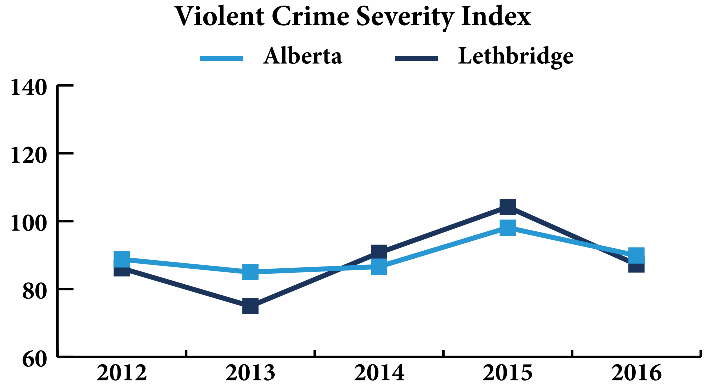
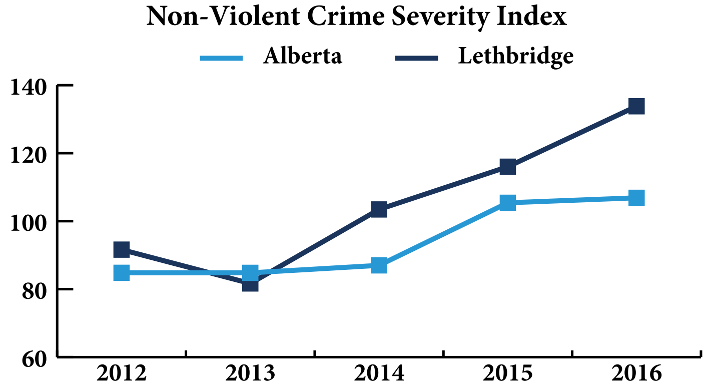
PART 5: APPENDICES

5.1 Appendix 1 - Crime Severity Index:

Alberta	2012	2013	2014	2015	2016
Crime severity index	85.99	84.98	87.02	103.61	102.49
Percent change in crime severity index	-1.73	-1.17	2.4	19.06	-1.08
Violent crime severity index	88.74	85	86.6	98.07	89.88
Percent change in violent crime severity index	-6.24	-4.21	1.88	13.24	-8.35
Non-violent crime severity index	84.81	84.8	87	105.41	106.87
Percent change in non-violent crime severity index	0.12	-0.01	2.59	21.16	1.39
Weighted clearance rate (number)	42.92	41.94	41.52	37.08	36.3
Percent change in weighted clearance rate	-2.12	-2.28	-1	-10.69	-2.1
Violent weighted clearance rate (number)	63.21	62.7	63.3	59.43	59.57
Percent change in violent weighted clearance rate	1.72	-0.81	0.53	-5.71	0.24
Non-violent weighted clearance rate (number)	35.2	34.37	33.74	29.51	29.18
Percent change in non-violent weighted clearance rate	-3.32	-2.36	-1.83	-12.54	-1.12

Lethbridge Region	2012	2013	2014	2015	2016
Crime severity index	90.29	80.01	100.19	113.03	121.56
Percent change in crime severity index	5.22	-11.39	25.22	12.82	7.55
Violent crime severity index	86.11	74.97	90.68	104.17	87.24
Percent change in violent crime severity index	10.68	-12.94	20.96	14.88	-16.25
Non-violent crime severity index	91.63	81.68	103.45	116.02	133.8
Percent change in non-violent crime severity index	3.49	-10.86	26.65	12.15	15.32
Weighted clearance rate (number)	57.92	58.88	59.26	53.54	50.94
Percent change in weighted clearance rate	3.32	1.66	0.65	-9.65	-4.86
Violent weighted clearance rate (number)	89.46	82.13	84.69	84.83	76.6
Percent change in violent weighted clearance rate	10.7	-8.19	3.12	0.17	-9.7
Non-violent weighted clearance rate (number)	47.14	51.11	51.15	43.32	44.86
Percent change in non-violent weighted clearance rate	-2.08	8.42	0.08	-15.32	3.55





CRIME SEVERITY INDEX NOTES

- The crime severity index is calculated using Incident-based Uniform Crime Reporting Survey (UCR2) data. For the period from 1998 to 2008 Incident-based UCR2 data are not available for all respondents. In order to report this level of detail for police services still reporting to the Aggregate Uniform Crime Reporting Survey (UCR) over this time, a process of imputation was applied to derive counts for violations that do not exist on their own in the aggregate survey. For approximately 80% of the aggregate offence codes, there is a 1:1 mapping with a new incident-based violation code. For violations where this was not the case, such as the aggregate other Criminal Code category, it was necessary to estimate (impute) this figure using the distribution of other Criminal Code offences from existing Incident-based UCR2 respondents.
- During the production of each year's crime statistics, data from the previous year are revised to reflect any updates or changes that have been received from the police services. For more information on the concepts, methods and quality of the data contained in this table, please contact the Canadian Centre for Justice Statistics at ccjsccsj@statcan.gc.ca or at 1-800-387-2231.
- The crime severity index includes all Criminal Code violations including traffic, as well as drug violations and all Federal Statutes.
- This represents the year-over-year (current year over last year) percentage change.
- The violent crime severity index includes all Incident-based Uniform Crime Reporting Survey (UCR2) violent violations, some of which were not previously included in the aggregate violent crime category, including uttering threats, criminal harassment and forcible confinement.
- The non-violent crime severity index includes all non-violent Criminal Code violations including traffic, as well as drug violations and all Federal Statutes.
- The Police Reported Crime Severity Index (PRCSI) measures changes in the level of severity of crime in Canada from year to year. In the index, all crimes are assigned a weight based on their seriousness. The level of seriousness is based on actual sentences handed down by the courts in all provinces and territories. More serious crimes are assigned higher weights, less serious offences lower weights. As a result, more serious offences have a greater impact on changes in the index. The PRCSI is standardized to 100 in base year 2006.
- The Crime Severity Index is not available for police services or detachments with populations less than 1,000. Data for police services or detachments with populations less than 5,000 should be used with caution.
- The weighted clearance rate is based on the same principles as the Police Reported Crime Severity Index (PRCSI), whereby more serious offences are assigned a higher "weight" than less serious offences. For example, the clearing of homicides, robberies or break and enters would represent a greater contribution to the overall weighted clearance rate value than the clearing of minor theft, mischief or disturbing the peace.
- The weighted clearance rate is not available for police services or detachments with populations less than 1,000. Data for police services or detachments with populations less than 5,000 should be used with caution.
- With the release of 2012 data, revised population estimates at the respondent level were applied back to and including 2004.
- Police reported statistics may be affected by differences in the way police services deal with minor offences. In some instances, police or municipalities might chose to deal with some minor offences using municipal by-laws or provincial provisions rather than Criminal Code provisions. Counts are based on the most serious violation in the incident.
- The crime statistics reported for this police service contain a notable proportion of incidents that occur within the local correctional facility. For further details, contact the Canadian Centre for Justice Statistics at ccjsccsj@statcan.gc.ca (1-800-387-2231).
- Starting in 2003, populations for all police services including all rural/provincial detachments have been presented. Prior to 2003, populations for rural detachments are not available.

SOURCES

Statistics Canada. Table 252-0088 - Crime severity index and weighted clearance rates, by police service, Alberta, annual (index unless otherwise noted), CANSIM (database). (accessed.)

5.2 Appendix 2 - Social Demographic & Economic Characteristics

(2011 Census & NHS)	City of Lethbridge		Alberta		Canada	
	No.	%	No.	%	No.	%
Marital Status **						
Married or Common Law	39,470	57%	1,756,855	59%	16,084,490	58%
Separated or Divorced	6,570	9%	248,235	8%	2,384,275	9%
Widowed	4,235	6%	131,440	4%	1,584,530	6%
Single (never married)	19,420	28%	823,935	28%	7,816,045	28%
Household Living Arrangements ***						
Couples with kids	8,810	26%	438,585	32%	3,921,735	29%
Couples without kids	9,940	29%	374,945	27%	3,538,720	27%
Lone Parents	3,225	9%	128,325	9%	1,375,450	10%
Single Person	9,270	27%	342,735	25%	3,673,305	28%
Other	2,895	8%	105,690	8%	811,410	6%
Language Spoken at Home *						
English	77,675	94%	3,095,250	86%	21,457,075	65%
French	295	0.4%	24,690	0.7%	6,827,865	21%
Other	3,675	4%	379,550	11%	3,673,865	11%
Multiple Languages	1,210	1.5%	110,695	3%	1,162,370	4%
Immigrant Status *						
Non-immigrants	70,695	87%	2,864,240	80%	25,720,175	78%
Immigrated < 2000	6,540	8%	386,885	11%	4,620,770	14%
Immigrated 2001 to 2005	1,045	1%	113,060	3%	992,070	3%
Immigrated 2005 to 2011	1,885	2.3%	144,170	4%	1,162,915	4%
Non-permanent Residents	1,225	1.5%	59,620	1.7%	356,385	1.1%
Visible Minority Status *						
Not a Visible Minority	74,400	91%	2,911,650	82%	26,587,575	81%
Japanese	1,575	1.9%	12,415	0.3%	87,270	0.3%
Chinese	1,125	1.4%	133,390	3.7%	1,324,750	4.0%
South Asian	920	1.1%	156,665	4.4%	1,567,400	4.8%
All Other	3,365	4.1%	353,855	10%	3,285,330	10%
Educational Attainment **						
No Cert, Dip, Deg	11,860	18%	550,465	19%	5,485,400	20%
HS Cert or Equiv	20,025	30%	764,390	26%	6,968,935	26%
Apprentice/Trades Cert or Dip	6,775	10%	318,280	11%	2,950,685	11%
College/CEGEP/other non-uni Cert or Dip	13,735	20%	530,100	18%	4,970,020	18%
University Cert or Dip < Bachelor	2,125	3%	122,465	4%	1,200,130	4%
University Cert, Dip, Deg	13,245	20%	603,040	21%	5,684,360	21%
Labour Force **						
Agriculture & Other Resources	1,570	3%	219,700	11%	848,640	5%
Construction	3,975	8%	195,905	9%	1,215,380	7%
Manufacturing	3,570	8%	123,465	6%	1,619,295	9%
Trade	8,020	17%	318,225	15%	2,765,110	16%
Finance, insurance & real estate	2,560	5%	108,850	5%	1,089,855	6%
Health care & social services	6,210	13%	206,695	10%	1,949,650	11%
Education	4,765	10%	141,550	7%	1,301,435	7%
Business services	5,530	12%	342,760	16%	2,814,420	16%
Other services	11,185	24%	430,990	21%	3,983,835	23%
Individual Income **						
Median Income	$31,151		$36,306		$29,878	
Median After-tax Income	$28,580		$32,847		$27,334	
Composition of total income (100%)		100%		100%		100%
Earnings		77%		81%		75%
Govt Transfers		11%		7%		12%
Other Money		12%		12%		13%
Shelter Costs ***						
Median monthly shelter costs - Rental	$895		$1,017		$784	
Median monthly shelter costs - Owned	$1,016		$1,251		$978	
* Total Population / ** Population aged 15+ / *** Total Private Households						

Source: Urban Futures (2014)

5.3 Appendix 3 - 2017-2021 Lethbridge & Region Major Development Projects:

Project Name	Cost (in millions)	Timeline	Sector
Cavendish Farms - Frozen Potato Plant	$360.0	2017-2019	Industrial
University of Lethbridge – Destination Project	$280.0	2017-2019	Education, Training, & Research
ATB Centre – Phase 2 Leisure Complex	$109.5	2017-2019	Recreation & Leisure
Electric Distribution Extension & Improvement – Annual Program [5]	$40.0	2018-2021	Electric Utility
West Lethbridge Middle School	$22.9	2017-2018	Education, Training, & Research
All Saints Parish*	$20.0	2017-2020	Community Supports
Transit Terminal & Regional Park N' Ride	$17.0	2017-2018	Transportation
Curbside Recycling	$16.3	2018	Waste & Recycling
Coalbanks Elementary School	$16.2	2017	Education, Training, & Research
Water Treatment Plant – Residuals Management	$15.0	2017-2018	Waster & Wastewater
Wilson Middle School Modernization	$14.8	2017	Education, Training, & Research
Yates Renewal	$13.4	2017-2018	Arts & Culture
Distribution Renewal – Annual Program [5]	$13.0	2018-2021	Electric Utility
Annual Overlay Program [5]	$12.8	2018-2021	Transportation
Water Treatment Plant – Process Redundancy	$12.1	2017-2021	Waster & Wastewater
University of Lethbridge – Kanai Residence Exterior Upgrades	$12.0	2018	Education, Training & Research
Substation 13.8 kV Switchgear Upgrades	$11.8	2017-2019	Electric Utility
Whoop-Up Drive – McMaster to Mauretania Blvd West	$11.6	2017	Transportation
Waste & Recycling Centre – Disposal Cell Development & Closure	$11.6	2017-2020	Waste & Recycling
Wastewater Treatment Plant – Headworks & Clarifier Upgrades	$11.4	2017-2018	Waster & Wastewater
University Drive – Community Stadium to Sunridge Blvd West	$10.9	2019-2020	Transportation
Wastewater Treatment Plant – Primary Clarifier Replacement	$10.8	2018-2019	Waster & Wastewater
New Fire Station #5 - West	$10.3	2018-2020	Community Supports
3rd Ave South (4th-8th Street) - Reconstruction	$10.0	2017-2020	Transportation
Metis Trail – Walsh to Whoop-Up	$9.7	2017	Transportation
Water Reservoir Upgrades	$9.4	2017-2021	Waster & Wastewater
Metis Trail – Temple Blvd to Coalbrook Gate	$6.9	2020	Transportation
Bridge Rehabilitation Program	$6.5	2018-2021	Transportation
Landfill – Gas & Leachate Management System	$6.1	2017-2020	Waste & Recycling
TOTAL	**$1,102.0**		

Notes:

1. This list includes major projects that were identified as of August 2017.
2. Major projects are valued at $5.0m or higher.
3. Project costs are calculated for 2017-2021 period and do not include funding outside of this time period with the exception of ATB Centre – Phase 2 Leisure Complex.
4. * Indicates a projects that has been proposed.
5. Annual programs include budget amounts for 2018-2021 period and do not include funding outside of this time period.